ENVIRONMENTAL IMPACT ASSESSMENT

TOURISM AND RECREATIONAL USE OF

NATURAL RESOURCES COMPONENT

ROSS BAY JUNCTION - CHURCHILL FALLS TOTE ROAD

TRANSPORTATION

GOVERNMENT OF NEWFOUNDLAND & LABRADOR

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF TRANSPORTATION

Office of the Minister
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ST. JOHN'S

File No. PR/71

MAR 11 1986

Honourable John Butt, M.H.A.
Minister,
Department of Environment
Elizabeth Towers
100 Elizabeth Avenue
St. John's, NF
A1C 5T7

Dear Colleague:

RE: Tourism and Recreational Use of Natural Resources Component Report - Ross Bay Junction to Churchill Falls Tote Road Environmental Assessment

In accordance with Section 9 (10) of the Environmental Assessment Regulations, 1984, I am enclosing twenty-five (25) copies of the Tourism and Recreational Use of Natural Resources Component Report for the Ross Bay Junction to Churchill Falls Tote Road Environmental Assessment. This report was prepared by Labrador Environmental Services Limited.

The views and recommendations presented herein are those of the consultant and do not necessarily reflect the policies and procedures of the Department of Transportation.

The information contained in this report relates specifically to the Tourism and Recreational Use of Natural Resources Component. There are six (6) additional component studies as well as an Environmental Impact Statement. Any views or comments which are expressed about this report should consider the other component studies and moreover, the Environmental Impact Statement which, in addressing the overall environmental impacts of the proposed project as documented in the component studies, will provide the clear statement of the policies and procedures of the Department of Transportation with respect to this project.

(...../2)

My department looks forward to your review and examination of this report.

If you have any questions, please do not hesitate to contact me or my staff.

Sincerely,

RON DAWE
MINISTER OF TRANSPORTATION

/dm
Enclosures

ROSS BAY JUNCTION TO CHURCHILL FALLS TOTE ROAD ENVIRONMENTAL IMPACT STATEMENT

Tourism and Recreational Use of Natural Resources Study

prepared by

D.W. KNIGHT ASSOCIATES LTD.

under contract to

LABRADOR ENVIRONMENTAL SERVICES LTD.

for

NEWFOUNDLAND DEPARTMENT OF TRANSPORTATION

March 25, 1986

Executive Summary

The specific objective of this study was to assess the impact of the Labrador tote road on tourism and the subsistence use of natural resources in the Study Area. The key indicators of change used in this impact assessment are:

- levels of resident and non-resident tourists,
- number and use of tourist operations,
- levels of resource harvest, and number of cabins.

Information for this study was obtained from 3 main sources, i.e. surveys, other EIS components and government statistics. Unfortunately the existing data base on resident and non-resident travel to Labrador, and the Study Area in particular, is virtually non-existent so that accurate predictions on future levels of tourism in the area, with and without the tote road, were difficult to make.

Existing Conditions

Labrador's share of the existing tourism market is small. The most recent air and auto exit surveys available show that only 1.8% of all auto travellers and 4.3% of all air travellers to the province indicate Labrador as a major destination. It is estimated that about 10-12,000 tourist trips are taken by residents to and within Labrador. Non-resident trips for 1983 are estimated at 7275.

The tourism plant in the Study Area comprises:

a) 4 hotels with an average occupancy rate of 30-40%
b) Duley Lake Provincial Park, which operates at capacity during the summer months
c) 3 fish camps
d) downhill and nordic ski facilities

The Study Area is rich in natural resources, particularly small game, waterfowl, sportsfish, and caribou. Many residents engage in hunting, trapping

and fishing for enjoyment and are not economically dependent upon these resources. There are 66 trappers in Labrador West and 22 in Churchill Falls. It is estimated that about 20+/- Innu families from Sheshatshui hunt and trap in the Study Area for subsistence purposes.

Cabins

Much of this recreational activity is carried out from cabins in the Study Area. It is estimated there are approximately 1000 cabins in the Study Area or 1 for every 4 households.

Fishing

The rivers and lakes in the Study Area abound in ouananiche, lake and brook trout, northern pike and whitefish. There is considerable potential for expansion of fish camp activity in the region. However, dependence of fish camps on road access is questionable. Except for Lobstick Lodge, fishermen now arrive at fish camps by chartered aircraft.

Trapping

The total fur-bearer harvest in Labrador in 1983-84 was approximately $245,000. Approximately $64,675 of this amount came from the Study Area. Trapping takes place from all access roads, including the Twin Falls, Esker and Ross Bay Junction Roads. The martin accounts for 69% of the fur-bearing harvest by value and the red fox for 20%.

Caribou

There are three companies in the Study Area licensed to pursue the commercial sport hunt, in addition to five companies in the Happy Valley/Goose Bay area. There is much optimism expressed on the future of such activity but it is not seen as road-related, being primarily a fly/camp operation.

Other

The Smallwood Reservoir is a very significant waterfowl habitat. While it has a low density population, it covers an extremely large area. It therefore has high interest to naturalists. The region is part of the northern range of several amphibians, which also is a significant feature for naturalists.

Marketing and Tourism Potential

The appeal of the Study Area to the non-resident tourist lies primarily in sports fishing, hunting and wilderness travel. None of these activities are dependent on road access. There are many other destinations in Canada which offer the same attractions, at lower cost, and which have well developed marketing programs.

The provincial Department of Development and Tourism has, until recently, had a very limited marketing budget. Under the recently signed Tourism Development Subsidiary Agreement there is the potential for increases in this budget and for tourism operators to access capital for expansion of facilities and promotion.

A recently released Tourism Development and Marketing Plan for Labrador West emphasizes the need for aggressive marketing to capture an increasing share of the tourism market. The biggest potential is seen to lie in the specialty markets outlined above, i.e. hunting, fishing and wilderness travel.

Impact Assessment

Without the Tote Road

Many aspects of tourism and the subsistence use of natural resources in the Study Area will remain much as they are today. With no large scale growth in resident population and no increase in accessibility to the area any future tourism developments will be those that are unrelated to road access. With an aggressive marketing approach and the expansion of facilities/infrastructure there is the potential for the area to capture an increasing share of some

specialty markets, eg. sports fishing, caribou hunting, wilderness travel and skiing. It is unlikely that the increase in the number of tourists would cause any undue pressure on any of the area's natural resources.

During Construction of the Tote Road

The actual construction period of the tote road is expected to have little or no impact on tourism or local hunters, trappers or fishermen. Any impacts on the Innu during this period are discussed in the Native Resource Use Component.

Two Years Post Construction

The overall tourist-related findings of this impact analysis is that the proposed tote road, seasonal or all-weather, will in and of itself, have minimal impact on the tourism industry of Labrador as a whole, or of the Study Area. What will be required to augment the Labrador tourist industry to any significant degree will be a joint effort by government and industry to launch an aggressive and innovative marketing and promotional strategy. At the same time, major investment will be required to upgrade and expand Labrador's tourism plant.

As a seasonal road only, the tote road at best will facilitate regional travel between Churchill Falls and Labrador City-Wabush; and Happy Valley/Goose Bay. It will also facilitate residents going out-of-province on vacation.

Other impacts include:

(i) Loss of drive-through traffic for Lobstick Lodge if the proposed route is chosen.

(ii) Potential for new fish camp/tourist facility in the vicinity of the Poisson River headwaters and Lake Ossokmanuan.

(iii) Probable demand for more cabin lots along either route although this is not expected to be high, given the limited potential for population growth in the region.

(iv) Increase in accessibility to natural resources, especially if proposed route chosen. There is concern about the Lac Joseph Caribou

herd.

Ten Years Post Construction

With the establishment of a circuit route through Labrador, there is the potential for an increase in rubber-tire traffic through the Study Area. Resident travel between Labrador East and Happy Valley/Goose Bay will increase substantially. Depending on marketing approaches adopted and infrastructure put in place Labrador could see a significant increase in non-resident travel. Much of this increase in tourism would not be directly road related, eg. fishing, hunting and wilderness travel.

The increase in accessibility and the level of resident travel could result in pressure on several natural resources. In particular, the waterfowl resource and the Lac Joseph Caribou herd could come under pressure.

Mitigation

Strategies for the management of impacts are outlined in full in Chapter 6 of this report and it is suggested that the reader refer to this section. The main recommendations however are as follows:-

(i) A comprehensive management plan for the Lac Joseph Caribou herd to be implemented by the Wildlife Division.

(ii) A waterfowl monitoring program to be implemented by the Canadian Wildlife Service.

(iii) A crown land management plan to be developed to control future cabin development in the Study Area.

(iv) The government to include Innu leadership in any development plans for the Study Area.

Tote Road EIS
Tourism/Recreation Component
Table of Contents

1.0	Introduction	1
1.1	Objectives	2
1.2	Key Factors	2
2.0	Approach and Methodology	4
2.1	Surveys	4
2.2	Other EIS Components	5
2.3	Government Statistics	6
3.0	Existing Conditions	7
3.1	Current Levels of Tourism	7
3.2	Natural Resources and Their Use	16
3.3	Existing Tourism Plant	28
3.4	Innu Harvesting Patterns	35
3.5	Community Concerns and Questions	37
4.0	Future Conditions	41
4.1	Without the Tote Road	41
4.2	During Construction of the Tote Road	53
4.3	Two Years Post Construction	54
4.4	Ten Years Post Construction	62
5.0	Summary of Findings	68
5.1	The Existing Condition: A Summary	68
5.2	Impact Assessment - Major Findings	70
6.0	Strategies for Management of Impacts	80

Appendices

A	Scoping Study	i
B	Relevant Factors	xvi
C	List of Contacts	xxi
D	Bibliography	xxiv
E	Questionnaire to Tourism Operators	xxvi
F	Waterfowl Surveys	xxix

List of Tables

		page
3.1	Visitation by Persons Indicating Labrador as a Major Travel Destination.	8
3.2	Non-resident Auto Parties Exiting Labrador Via CN Marine Ferries, June 15 - Aug 31, 1979-1983.	9
3.3	Origin of Non-resident Auto Parties in Nfld & Labrador Compared to Labrador.	9
3.4	Non-resident Auto Trips by Purpose.	11
3.5	Total Non-residents Exiting Labrador by Airport: 1979-1984, (June - September)	12
3.6	Origin of Non-residents Exiting Labrador by Air (June - Sept).	12
3.7	Location and Number of Cabins Relative to the Study Area & the Churchill River Road.	18
3.8	Potential Annual Fish Harvest, Entire Smallwood Reservoir Area.	19
3.9	Fur Harvest During the 1983-84 Trapping Season.	22
3.10	Present Innu Harvest for Entire Road Area.	23
3.11	Total Number of Breeding Waterfowl in Smallwood Reservoir Eco-region as a Percentage of Total for Labrador	26
4.1	Origin of Tourists by Person Days for Guided and Non-guided Wilderness Experience Tours.	47

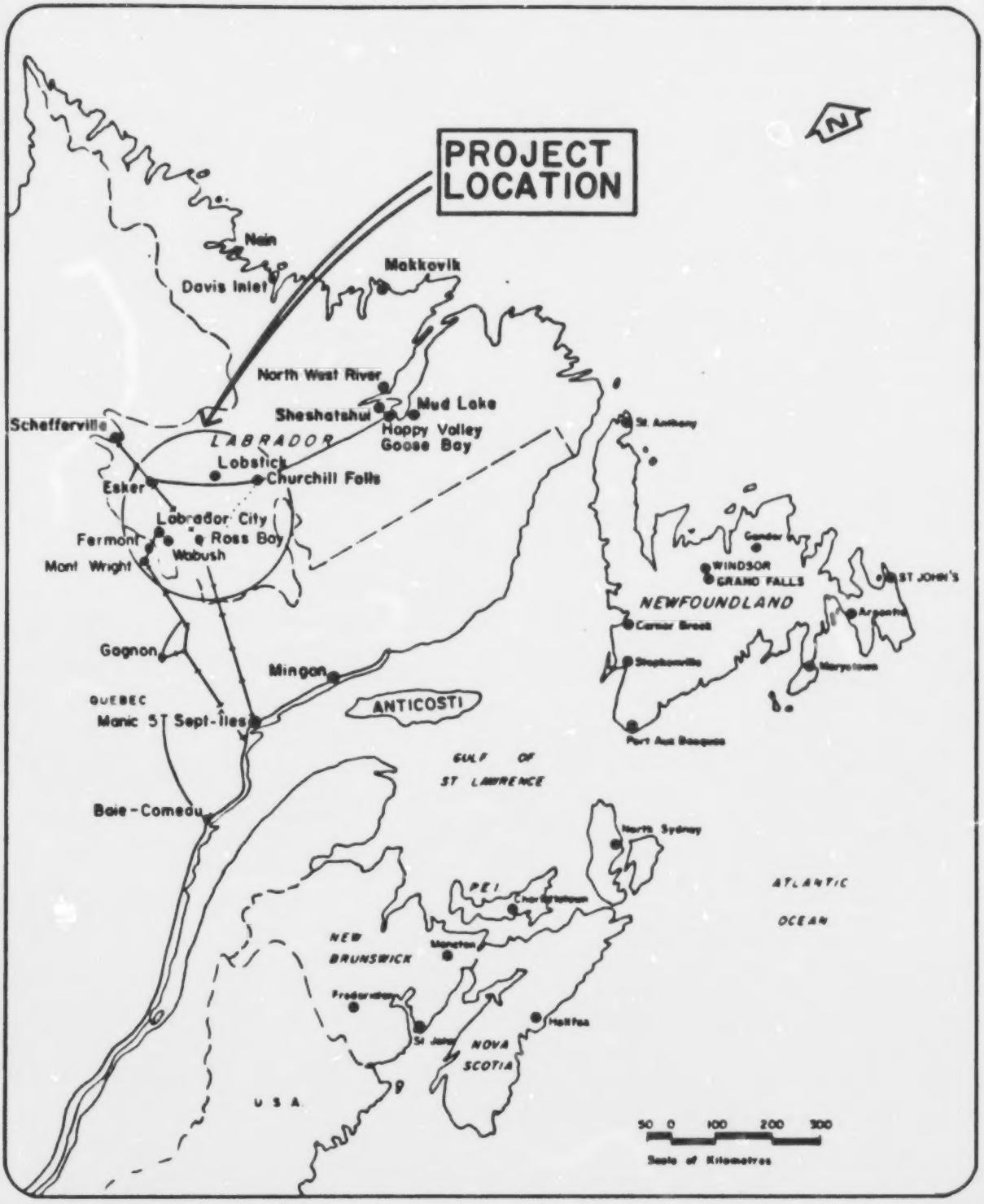
CHAPTER 1: INTRODUCTION

In January of 1985, the Newfoundland Department of Transportation contracted D.W. Knight Associates to undertake a tourism/recreational analysis as part of an overall environmental impact assessment of the Ross Bay Junction - Churchill Falls Tote Road. In all, there are seven (7) components to the Environmental Impact Assessment: Socio-economic, Fisheries, Historic Resources, Native Resource use, Wildlife, Tourism/Recreational, and Public Participation.

The tote road proposed for immediate construction is to be a gravel-based summer road. The significance of the proposed road is that it will be the second to last link remaining to connect Labrador to the rest of Canada via Quebec. The additional link remaining is the approximately 26 km stretch south of Gagnon, Quebec which is scheduled for completion in 1987. When upgraded to an all-weather road, the route from Labrador City/Wabush to Happy Valley/Goose Bay, to be known as the Trans-Labrador Highway, will provide Labradorians with the opportunity to exit their province by land. By providing a circuit highway route looping around the Gulf of St. Lawrence, this highway could also have a significant impact on tourism in Labrador in the long term.

Two routes are being considered for the tote road. The proposed route runs from Ross Bay Junction diagonally to Twin Falls, parallelling approximately the transmission line which brings Churchill Falls power to Labrador West. The alternate route runs north from Ross Bay Junction to a point east of Esker, parallelling the Quebec North Shore and Labrador Railroad. This alternate route would then link up with the existing Esker Road to Churchill Falls.

The immediate impact area for the study (to be referred to as the Study Area) has been defined as the triangular area falling south of the Esker Road, north of the proposed route from Ross Bay Junction to Churchill Falls, and east of the alternate route from Ross Bay Junction to Esker.



ROSS BAY JUNCTION - CHURCHILL FALLS TOTE ROAD

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FIGURE 1: Project Location

1.1 Objectives

The overall goal of the study is to assess the tourism/recreational - related impacts of the proposed tote road on the Study Area.

The specific objectives of the study are to:

- identify the existing use of natural resources in the Study Area by residents and non-residents;
- identify the existing tourism plant relevant to the Study Area;
- describe the present levels of tourist, recreational and subsistence use of the natural resources within the Study Area;
- identify the expected level of increase in tourist, recreational and subsistence use of natural resources in the Study Area;
- identify the potential economic benefits due to increased tourism and recreational use of the Study Area;
- determine the implications of a sudden increase in tourist, recreational or subsistence use of natural resources in the Study Area should this type of increase follow the opening of the tote road.

1.2 Key Factors

In arriving at a list of key indicators of change to be used in this study, the following was taken into account:

- The need to respond to the Terms of Reference, and
- The unavailability of much data concerning tourism and the recreat-

ional/subsistence use of resources within the study area.

The key indicators used in the study are:

i) levels of resident and non-resident travel

ii) number and use of tourist operations, (fish camps, hotels, parks, etc)

iii) levels of resource harvest

iv) number of cabins

CHAPTER 2: APPROACH AND METHODOLOGY

The approach and methodology undertaken in carrying out this study varies somewhat from that laid out in the original proposal to undertake the tourism-recreational assessment. The methodology as outlined in the proposal was based on information and data gathering from three (3) main streams.

The first stream consists of gathering information through surveys of community residents relative to the proposed tote road, as well as other key informants living in Labrador.

The second stream was directed at drawing information from other components of the Tote Road EIS.

The third stream was directed at analyzing basic tourism and recreational - related data available from the appropriate government departments or agencies.

Each of these three information gathering streams are discussed below together with the constraints found in the data gathering exercise.

2.1 First Information Gathering Stream: Surveys

Two surveys were carried out for both this component and the Socio-economic component. The first was a Scoping Study where selected individuals were interviewed regarding their opinion and concerns relative to the proposed tote road.[1]

In selecting the group of people to be interviewed, the Study Team paid careful attention to choosing individuals who would be knowledgeable about the area, represent a good cross-section of the community and be able to contribute significantly to a discussion of impacts. Those selected represent a diverse group of organizations, affiliations and community groups. In addition, 11

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1. see Appendix A.

people were interviewed who attended the public information session held in the area and who were recommended by other key informants.

The second survey was undertaken by telephone of residents living in Labrador West, Churchill Falls and Labrador East. The main purpose of the survey was to define individuals' propensity to travel using the tote road, and for what purposes.

A third survey, telephone interviews with wilderness tour operators operating out of Toronto and New York, was conducted to obtain existing operator's opinions on the potential Labrador could offer to the wilderness market.

Finally, attempts were made to interview existing wilderness guides and outfitters running camps in Labrador. Due to the study period being in the operators prime season, only a few contacts with existing operators were made. Other data has been drawn from the 1986 Tourism Development and Marketing Plan Study to supplement this however.

2.2 Second Information Gathering Stream: Other EIS Components

It was expected that the qualitative information derived from community surveys and interviews with key informants would be supplemented with quantitative data drawn from other components of the EIS. In particular, it was assumed that the Wildlife and Fisheries components would provide the basis for a comprehensive description of the Study Area's natural resources and their significance. Unfortunately the data available was not nearly as comprehensive as anticipated. Accordingly, efforts were made to obtain supplementary information on natural resources and their use from various government bodies. To the extent that information was available, it is included.

The Historic Resources Component was to be used to identify significant events and sites concerning past resource use. However, no sites were identified and consequently this component does not include an historic analysis.

2.3 Third Information - Gathering Stream: Existing Government Statistics

It was also expected that basic visitor and resident-related statistics for Labrador would be available from the provincial department of Development and Tourism. These statistics were to form the basis for analyzing future travel within Labrador relative to the tote road.

Unfortunately the Department does not separate out Labrador visitor statistics from those of Newfoundland and Labrador as a whole. This left the study team in a position of having to "best guess" statistics, using assumptions drawn from surveys which had an extremely small sample of travellers to Labrador. The resulting information determined by the study team were reviewed with tourism officers and were accepted as "likely" estimates.

In addition, the literature was reviewed for reports on tourism in other provinces with relevance to Labrador. In particular, the Yukon tourist industry was reviewed.

CHAPTER 3: EXISTING CONDITIONS

This chapter describes the existing conditions in the Study Area with regard to tourism, recreation and the subsistence use of natural resources.

It includes five main sections, as follows:-

i. Current levels of tourism in Labrador;
ii. Natural resources and their use;
iii. Tourism infrastructure;
iv. Community concerns and questions.

3.1 Current Levels of Tourism

Statistics on visitor travel to Labrador reflect the fledgling state that the tourism industry of the province is in. Presented below is an analysis of non-resident visitors to Labrador for the years 1979-1983. Apart from one resident survey undertaken by the Department of Development and Tourism in 1977, statistics on resident travel have not been gathered and therefore were not available to this analysis. However, certain assumptions regarding resident travel have been made by the study team based on general patterns established by other provinces and the 1977 survey.

Of all visitors travelling to Newfoundland, only 1.8% of all auto travellers and 4.3% of all air travellers indicated Labrador as a major destination. Labrador is obviously viewed as a different product from the rest of the province as a whole. (See Table 3.1)

TABLE 3.1: Visitation by Persons Indicating Labrador as a Major Destination, 1979-1984

	Auto Travel			Air Travel		
		Indicating Labrador			Indicating Labrador	
	Total # Parties	#	%	Total # Parties	#	%
1979	34 966	299	1			
1980	34 255	255	1	109 004	13 189	12.1
1981	34 550	227	1	104 668	13 665	12.1
1982	31 985	416	1.3	88 844	4 265	4.8
1983	N/A	N/A	1.8	-	-	-
1984	-	-	-	N/A	N/A	4.3

Source: 1984 Air Exit Survey, 1983 Auto Exit Survey
Note : All figures should be used with caution due to small sample sizes.

3.1.1. Non-Resident Auto Travel to Labrador

At the present time the non-resident auto market is limited for Labrador. 1983 statistics indicate that over the June 15 - August 31 period, some 402 non-resident autos or 1,166 persons visited Labrador via CN Marine ferries. Despite the limited road system in Labrador, however, this number has shown an increase of 43 percent in auto parties over 1981, which would suggest a growing awareness of Labrador. The existence of a highway system linking Labrador to Quebec should increase these figures substantially, given proper marketing to the relevant market segments.

The findings of the 1983 non-resident auto exit survey indicate that the origin of non-resident auto parties to Labrador varies considerably with that for the province of Newfoundland and Labrador as a whole. As Table 3.3 suggests, 51.3 percent of all non-resident auto parties came from the U.S., with 19 percent from the Maritimes and 16 percent from Ontario. Comparable percentages for the entire province however show a much smaller American visitation rate compared to Labrador.

Table 3..2* Non-Resident Auto Parties Exiting Labrador Via CN Marine Ferries, June 15 - August 31, 1979-1983

Year	# of Autos	# of Visitors
1983	402	1166
1982	416	1206
1981	227	658
1980	225	653
1979	229	664

* Source: Nfld. & Lab. Department of Development & Tourism, Auto Exit Surveys, 1979 - 1983.

Table 3.3 Origin of -Non-Resident Auto Parties in Newfoundland and Labrador, compared to Labrador

Origin	Province (%)	Labrador (%)
Maritimes	38.23	18.9
N.S.	28.19	13.5
N.B.	8.34	5.4
P.E.I.	1.70	-
Ontario	32.94	16.2
Quebec	4.68	8.1
Other Canada	5.81	5.4
U.S.	18.34	51.3
New England	5.61	10.8
Mid Atlantic	4.63	21.6
Other U.S.	8.10	18.9
Other Countries	-	-
TOTAL	100%**	100%**

** 4570 trips (99.2%) to the province; 37 trips (.8%) to Labrador, based on a sample of 4617 major destination visits.

Normally, the bordering province is the single greatest source of non-resident visitors. Quebec however is the exception, providing only eight percent of visitors to Labrador. This low level of visitation can probably be explained by three main factors:-

(i) Quebecers traditionally travel to areas of sunshine and beaches over the summer months. New England beaches in particular are traditional summer retreats for the Quebec market.

(ii) There is no direct road link from Quebec to the Study Area.

(iii) Travel by car to the island portion of the province involves a lengthy ferry crossing.

There is no doubt that the most important of these factors is the first one. Other studies have demonstrated that Quebecers consistently select southern, more temperate climates for their vacation. If a road link is provided between Quebec and Labrador, certainly a few tourists might be expected but Quebec will not provide much of a visitor base, unlike other bordering provinces.

It is estimated that 5000 tourists currently travel each year up to the present limits of the Quebec road, as far as the Manic 5 bridge.[2] Once the road connection to Fermont is complete, a percentage of them will travel on to Labrador West. However, as concluded in the recently completed Labrador West Tourism Development & Marketing Plan, there is no basis on which to make a prediction on the number of tourists who will choose to do so.

When interpreting these numbers, it must be realized that the sample size upon which the visitor analysis was made was very small for the Labrador segment - a total number of 37 auto parties, in comparison to 4570 to the island. Because of the small number, the analysis may not reflect the true nature of the non-resident auto traveller to Labrador. Regardless, the data,

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[2]Robin Belanger, Mayor of Fermont.

segment - a total number of 37 auto parties, in comparison to 4570 to the island. Because of the small number, the analysis may not reflect the true nature of the non-resident auto traveller to Labrador. Regardless, the data, when looked at together with the island of Newfoundland's data, indicate that Labrador's strongest markets are the Maritimes and Ontario in Canada, and the United States.

When these auto trips to Labrador are categorized by purpose, business trips form the greatest percentage of these trips. Percentages for purpose are listed in Table 3.4.

Table 3.4 Non-Resident Auto Trips by Purpose

Purpose	Percentage	Number
Visit friends and relatives	26%	10
Business	46%	17
Fishing	20%	7
Conference/Sightseeing	8%	3
	100%	37

3.1.2 Non-Resident Air Visitors

In attempting to come up with non-resident air visitors to Labrador, we have applied relevant findings from the 1982 Newfoundland and Labrador Air Exit Survey to the total planning statistics of Labrador.

The Air Exit Survey found that 30.3 percent of all air passengers to Newfoundland and Labrador are non-resident. When this percentage is applied to all passengers exiting Labrador by air, Table 3.5 emerges. It shows that approximately 60 percent (or 4000 people) of all non-residents who exited Labrador in 1984, left from the Study Area.

Table 3.5 Total Non-Residents Exiting Labrador by Airport: 1979-1984, (June - September)

	Ch. Falls	Goose Bay	Wabush	Total
1984	173	2290	3968	6432
1983	183	2164	3762	6109
1982	308	2376	3995	6680
1981	337	2620	5481	8439
1980	480	2632	5539	8652
1979	569	2580	5946	9096

When the origin-related findings from the Air Exit Survey are applied to the total planning statistics for Labrador, the following picture emerges.

Table 3.6 Origin of Non-Residents Exiting Labrador by Air (June-September)

	NS/NB/PEI	QUE.	ONT.	U.S.	OTHER COUNTRIES	OTHER CANADA
1984	2058	1543	1222	900	514	192
1983	1954	1466	1160	855	488	183
1982	2137	1603	1269	935	534	200
1981	2700	2025	1603	1181	675	253
1980	2768	2076	1643	1211	692	259
1979	2910	2183	1728	1273	727	272

From this it can be seen that the Maritimes form Labrador's largest non-resident air visitor market with 32 percent of all non-resident air visitors. Quebec provides 24 percent of air visitors, followed closely by Ontario at 19 percent. The U.S. provides 14 percent of air visitors.

The Air Exit Survey also provided reasons for visiting Labrador. It suggests that some 50 percent of air visitors travelled to Labrador for reasons generally related to tourism. "Fishing" at 20 percent would support the

general finding of this study that the tourist appeal of Labrador lies in her wilderness activities.

"Sightseeing", at two (2) percent however, does not emerge as a major draw. "Visiting Friends and Relatives" at 26 percent shows that there is a large market of ex-patriots which could make up a considerably large tourist market. The remaining 50 percent visited Labrador on business. These percentages are very similar to those for the auto exit survey (Section 3.1.1).

3.1.2. The Resident Market

As has been noted earlier, resident travel statistics, (a resident traveller is defined as taking a trip more than 50 miles distance from home) are not collected by the provincial government. However certain assumption about that market can be made.

The typical pattern of tourism across Canada, with the exception of Prince Edward Island, is that the resident market forms the basis of each province's tourism industry. In Nova Scotia, for example, the number of resident trips over the June through September, 1983 period accounted for more than double the numbers of non-resident visits to the province. If this pattern holds true for Labrador, then the resident travel market over the 1983 period should account for approximately 15000 trips.

However, with the limited highway network in Labrador, and the difficulty

accessing Labrador for Newfoundlanders, this estimate is probably high by at least 50 percent. Resident trips are more likely to be in the range of 7500-8000. This assumption is somewhat validated by the results of the resident telephone survey carried out for this study. Applying the ratio of .2 trips per household[3] per year against total Labrador households, some 5900 trips can be assumed to be made by Labradorians within Labrador.

A 1977 Newfoundland and Labrador Domestic Travel survey indicated that approximately 3400 Newfoundlanders travelled to Labrador on pleasure trips that year. The majority of these trips however were to points along coastal Labrador.

The resident population should hold potential for wilderness camping trips to the Study Area however. Among Canadian households, Newfoundland and Labrador ranks second and third, respectively, in terms of ownership of truck campers and travel trailers on a per household basis. In 1982, some 5000 households owned truck campers, and 6000 households owned travel trailers, indicating a propensity for outdoor vacation experiences. In Alberta, for comparison, 8000 households owned truck campers and the same number of travel trailers. In Ontario, the corresponding numbers were 2000 and 3000 respectively (Statistics Canada, Catalogue 64-202). Interestingly, Newfoundland had the smallest number of households owning tents.

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[3]Results of the telephone survey with Labrador residents show that only 10 percent of trips taken by residents were within Labrador.

3.1.4 Summary of Travel to and within Labrador

As the above sections indicate, Labrador's share of the tourism market is small. For 1983, non-resident visitors (both auto and air) have been estimated at around 7275, with an additional 10 to 12,000 tourist trips taken by residents. Total tourist-related trips then are estimated between 17 and 20,000 for the June to September period.

In order to put these figures in some sort of perspective, a comparison is made with Nova Scotia. Tourism is a major industry in most provinces. Newfoundland, to date, has done little to promote tourism and her visitation statistics reflect that. Nova Scotia, a neighboring province, has pushed tourism fairly aggressively. Nova Scotia experienced slightly over one million non-resident trips alone over the same period in 1983. Given the relative inaccessibility of the Study Area by car from coastal Labrador, it is assumed that less than half of the number of trips to Labrador were made to the Study Area. The majority of trips in the Study Area vicinity would have been made by air.

Non-resident tourist-related expenditures over the 1983 June to September period are estimated by the provincial Department of Development and Tourism at around $3,091,900. Of this amount, $581,300 was spent by auto travellers, and $2,510,000 by air travellers. No estimates are available for resident tourist-related expenditures. (On a per capita basis, Labrador's nonresident tourist expenditures amount to about $104 per Labrador resident. This compares to about $216 for each Nova Scotian resident derived from non-resident expendi-

tures in that province.)

3.2 Natural Resources and Their Use

The study area and surrounding region is rich in natural resources of small game, caribou and fish. The Smallwood Reservoir eco-region is considered a major habitat for waterfowl (low density population but covers an extremely large area) The area is habitat to other wildlife as well, including birds of prey and amphibians. It forms the northern limit of the range of many amphibians, which is of interest to naturalists. The wildlife component of this EIS contains a more complete description. For the purpose of this analysis, natural resources in the Study Area have been restricted to small game, waterfowl, wood, fish and caribou.These resources are used by residents and,to a lesser extent,non-residents,in hunting, fishing, trapping and wood-cutting. Much of this activity is associated with cabin development in the area.

Discussion with Wildlife and Forest Resources and Lands personnel indicate that few if any residents of Labrador City/Wabush and Churchill Falls are dependent upon hunting, trapping or fishing for their livelihood. Sport fishing and hunting of small game and waterfowl is engaged in heavily by residents for recreational enjoyment and forms part of the Labrador lifestyle.

The Innu from Shetshatshui and from Quebec are more heavily dependent upon natural resource exploitation than other people in Labrador. They have plans to harvest white fish commercially, and have hunted caribou for subsistence uses for centuries. Actual quantities of harvest taken during the 1983 - 1984 season are shown in Table 3.10, later in this chapter.

The sports fishery and caribou hunt offer significant potential for a tourist industry in Labrador West. This has been recognized in a report recently prepared for the Labrador West Tourism Association, which is to culminate in a strategy for tourism development in the region.[4] While the sports fishery is dependent on a 'stationary' resource, the success of the caribou sport hunt is determined by the migration patterns of the caribou, which change over time. Last year, for example, the herd migrated further south (into the Labrador West region) than had been the case for many years.

3.2.1 Cabin Development

The region bordering the Study Area, on its west and northern boundaries, has seen extensive development by the resident population for their recreational enjoyment, including sport fishing and hunting. Table 3.7 indicates the locations of the majority of known cabins. An estimate of the number of cabins relative to the Study Area runs at around 1000. Statistics Canada sets the number of households for Labrador City/Wabush and Churchill Falls at 4500. This means roughly a ratio of 1 cabin for every 4 households (See Figure 2).

Since completion of the tote road to Ross Bay Junction, there has been a high demand for cottage lots in the area, particularly on the Ashuanipi River. Interest has been expressed by the resident population for cabin permits on the

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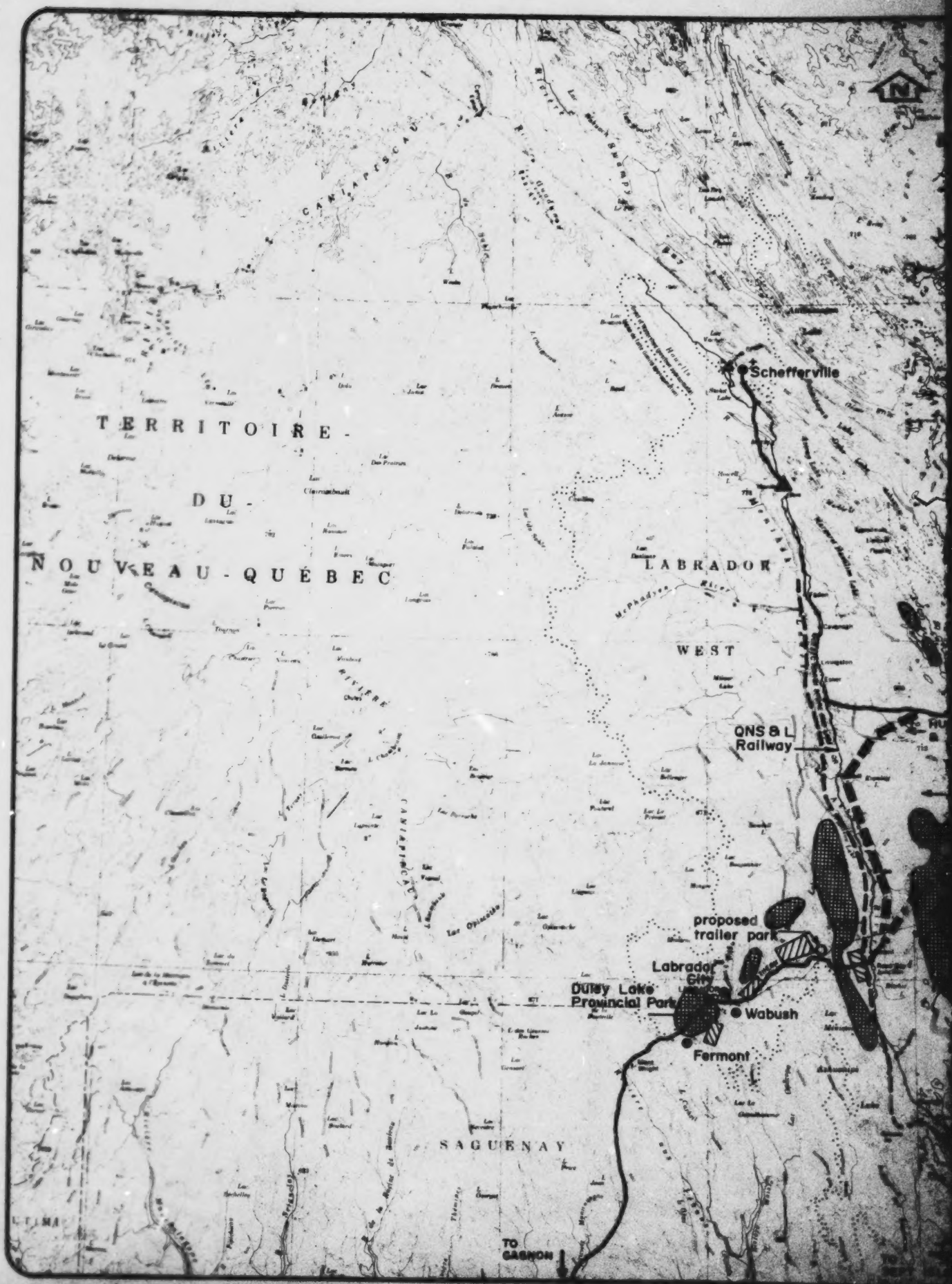
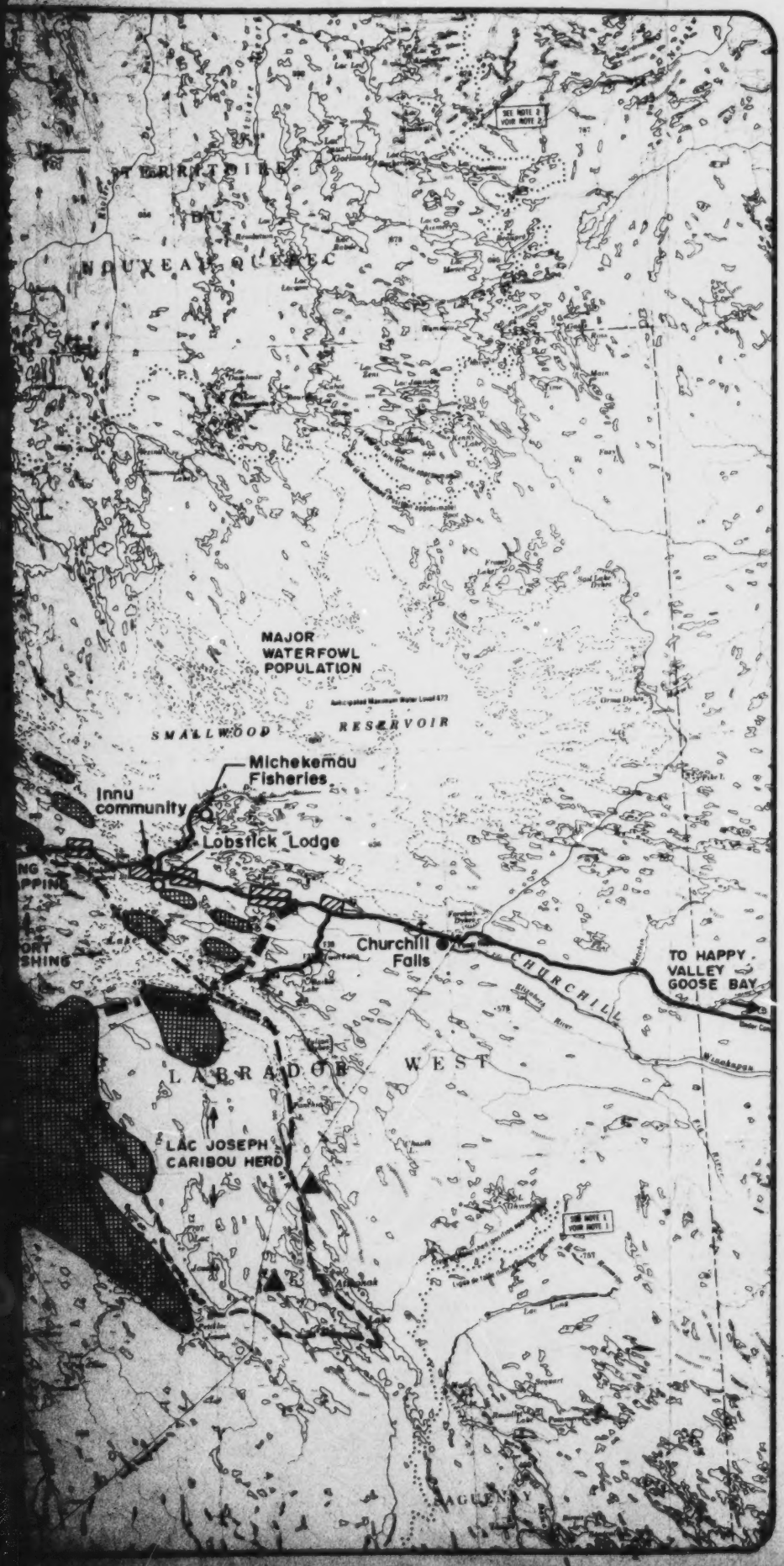
[4]Marshall, Macklin, Monaghan Ltd. 1986, "Labrador West Tourism Development and Marketing Plan."


Schefferville
TERRITOIRE-
DU-
NOUVEAU-QUÉBEC
LABRADOR
WEST
QNS & L
Railway
proposed
trailer park
Labrador
City
Duley Lake
Provincial Park
Wabush
Fermont
SAGUENAY
TO
GAGNON



ROSS BAY JUNCTION–CHURCHILL FALLS

TOTE ROAD

ENVIRONMENTAL IMPACT ASSESSMENT

Tourist and Resource Uses

- main wooded areas
- major cabin areas
- traditional canoe routes
- fish camps
- existing road links

Figure 2

SCALE 1:1,550,000

10 5 0 10 20 30 40 50 KM

DATE: Nov. 1985

CONSULTANT: D.W. Knight Associates Ltd.

TRANSPORTATION

head waters of the Poisson River[5], which is located in the centre of the Study Area (presumably, on the assumption that the tote road would be constructed along the proposed route). However, the Department of Forest Resources and Lands, Land Management Branch, is in control of all cabin development on Crown Lands through its cottage subdivision and remote cottage policies. Under this, cabin development is only permitted in approved cottage zones if the demand exists and subsequent to a development plan being prepared by the Lands Branch.

Table 3.7 Location and Number of Cabins Relative To the Study Area, & the Churchill River Road

Location	Number
Labrador West	
. Ashuanipi River (both sides of the Ross Bay Junction Road)	75-80
. Duley, Moosehead, Juliene, Loon General Region, incl. Rectangular & Juliene Lakes	170-200
Esker Road	
. Mile 45 - Simms River	5
. Gabbro Dam	7
. Mile 61 (west of Lobstick Lodge)	6
. East of Lobstick Lodge	9
. Mile 75 to Mile 83	50
. West of Twin Falls Road	6 - 8
. Powell Rapids Area	3
Twin Falls Road	
. Ossakmanuan Lake	1
. at end of road	2

[5]Interview with Crown Lands Officers in Wabush and Happy Valley/Goose Bay

Churchill River road

. Metchim River	2
. Wilson Lake	3
. Cache River	1
. Diver Brook	3
. Pinus River	3
. Edwards Brook	5+
. Upper Brook	12
. Lower Brook	10 - 12

3.2.2 Fishing

The lakes and rivers of the Study Area, abound in, lake and brook trout, ouananiche, northern pike and whitefish. Although none of these species can be considered "exotic" in that they cannot be found elsewhere, the size, abundance, ease of catch, quality and lack of commercial competition for the resource do make it an attractive one for the sports fisherman. Potential annual yields by type from the Study Area are set out in Table 3.8. There are no accurate harvesting records kept for this area.

Table 3.8 Potential Annual Fish Harvest, Entire Smallwood Reservoir Area*

Type of Fish	Potential Annual Yield 000 k/g
Whitefish	987.0
Lake Trout	427.0
Brook Trout	222.0
Northern Pike	128.0
Ouananiche	1.5

*Source: Department of Fisheries and Oceans.

Seasons for fishing are set by the federal Department of Fisheries and Oceans. Inland licenses for fishing are available through the Wildlife Division of the Provincial Department of Culture, Recreation and Youth.

Sports fishing by local residents as evidenced by the number of cabins, is a

Sports fishing by local residents as evidenced by the number of cabins, is a popular activity. However, data is not available on the number of licenses issued to Study Area residents. License data is only compiled for the province as a whole.

In addition to the resident sports market, the area sees a considerable influx of non-resident population interested in the sports fishery. "Labrador Adventure" operates out of Churchill Falls offering trophy fishing to U.S. and Newfoundland markets at the Lobstick Lodge. This year the operator is offering a direct flight package from Bangor, Maine in the form of a 5-day all inclusive trip priced at $1,600.00. There are three (3) fish camps which have operated in the region surrounding the Study Area, in addition to Lobstick Lodge. They are located at:

- Atikonak Lake,
- Kepimets Lake, and
- Juliene Lake

However, only the one at Atikonak Lake is currently operating. No information is available on its current level of business. Estimates from interviews with operators indicate that approximately 1000 clients (non-residents) used Labrador fish camps over the 1984 season.

Considerable potential for expansion in fish camp activity exists. There has been a freeze in effect by the Province on the establishment of fish camps over the past several years. This policy is currently being studied and may be changed in the near future.[6]

Plans to set up operation in the Labrador City area are currently underway by a camp owner out of Schefferville, to create "Torngat-Labrador Outfitters", with the ultimate aim of offering a variety of fishing and hunting opportunities including:

1) Char fishing/caribou hunting in the Torngat Mountains;

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[6]Interview with Senior Regional Supervisor for Labrador, Department of Development.

3) Moose hunting south of Churchill Falls.

Labrador City was selected due to air access and the potential to attract road traffic in the future and thus offer a more price competitive experience by removing air fare costs and related fish/meat air transport difficulties.

In addition to the fish camps, the infrastructure necessary for a whitefish fishery has been set up by the Innu of Sheshatshui at Lobstick Dam on the Smallwood Reservoir. Development of the site was started in 1977 and a good deal of energy was put into developing markets (see Socio-economic Component).

Up to 10 Innu families have lived in a settlement nearby at Lobstick for extended periods of time. They have recently indicated an interest in applying to the Department of Indian and Northern Affairs for band status.

3.2.3 Trapping

The total fur-bearer harvest of Labrador in the 1983/84 season is valued at around $245,000. Some $64,675.50 of this total was harvested in the vicinity of the Study Area.

Statistics relating to the fur-bearing harvest relative to the study area over the 1983/84 season are provided in Table 3.9. Marten are the most common species harvested, accounting for 436 pelts, whereas red fox accounted for 20 percent of the total value ($12,300).

The harvest is carried out by local trappers, and is regulated by the Provincial Wildlife Division. Estimates of trappers in the Labrador City/Wabush area are given at 66; for Churchill Falls, 32. These numbers do not include the Innu trappers who normally market their harvest in Quebec.

Wildlife officials have stated that little if any trapping is carried out in

the Study Area proper. Most trapping occurs off the Esker Road and Twin Falls Road, and south of Wabush. Also, they have indicated that few trappers in the area earn substantial portions of their income from trapping. Rather, most who trap see it as an activity making up their northern lifestyle.

Table 3.9 Fur Harvest During the 1983-1984 Trapping Season (1 July 1983 - 30 June 1984) in the Study Area)[7]

Species	C. Falls	Wabush/ Lab. City	Mean Value	Total Value
Beaver	7	8	$ 20.00	$ 300.00
Marten	436	207	$ 70.00	$45,010.00
Mink	28	25	$ 15.00	$ 795.00
White Fox	1	-	$ 25.00	$ 25.00
Wolf	5	-	$ 175.00	$ 875.00
Weasel	46	14	$ 2.00	$ 120.00
Squirrel	28	2	$ 00.25	$ 7.50
Otter	8	12	$ 75.00	$ 1,500.00
Muskrat	4	117	$ 3.00	$ 363.00
Lynx	1	-	$ 400.00	$ 400.00
Cross Fox	20	5	$ 100.00	$ 2,500.00
Red Fox	190	56	$ 50.00	$12,300.00
Silver Fox	10	2	$ 40.00	$ 480.00
	TOTAL VALUE			$64,675.50

There are currently about ten Innu families who are engaged in harvesting activities along the railway in the vicinity of the Study Area[8]. At the Esker Road and Lobstick Fish camp region there are another ten families. The number of Innu hunting and trapping in the area fluctuates from year to year with additional families from Sheshatshui and male hunting parties from Quebec who come up and hunt along the railway line. Table 3.10 gives an estimate of the Innu harvest for the locations with the Study Area where the Innu presently

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[7]Source, Wildlife Division, Happy Valley/Goose Bay

[8] Native Resource Use Component Study, Ross Bay Junction - Churchill Falls Tote Road EIS.

hunt and trap.

Table 3.10: Present Innu Harvest for Entire Road Area
Source: Native Resource Use Study

Species	Number	Mean Value	Total Value
Caribou	21		
Moose	13		
Bear	13		
Beaver	230	$ 30.00	$ 6,900
Mink	252	15.00	3,780
Martin	468	70.00	32,760
Weasel	432	2.00	864
Otter	29	60.00	1,740
Lynx	7	500.00	3,500
Fox	21	50.00	1,050
Muskrat	700	3.00	2,100
Porcupine	43		
Hare	508		
Grouse	2,000		
Geese	70		
Ducks	420		
Owls	16		
Loons	25		
Pike	320		
Suckers	1,060		
Whitefish	280		
Trout	4,056		

Total fur cash value	$ 52,694
Total cash value of subsistence food	$ 99,948
(1985 dollar replacement cost @$6.00 per kg.)	
Total estimated cash value of food and furs harvested	$152,642

No estimates for monetary value have been included for the following items, which are also harvested by the Innu in the Tote Road region:

1) Caribou, bear and other skins and furs kept for their own use by members of the household, or for the manufacture of commercial handicrafts.
2) Firewood
3) Wild fruit
4) Wood used to manufacture household products, or in commercial handicraft production.

3.2.4 Caribou

There are two caribou herds in Labrador both of which are relevant to the Study Area. The first is the Lac Joseph Caribou Herd. This herd, which numbered approximately 10,000 animals in 1961, has decreased to its present population, estimated around 240. The causes of this decline are not certain but have been attributed to several factors, including:-

(i) over-hunting and destruction of their habitat;
(ii) predation by wolves;
(iii)disease; and
(iv) calf mortality.

The strength of the herd is considered fragile and any further aggravation could result in its extinction .[9]

The second herd, known as the George River Caribou Herd, is the world's largest and currently numbers in excess of 500,000. It is gradually expanding south into the northern range of Western Labrador. Current projections indicate that over 50,000 animals are being added yearly to this herd. Such expansion could possibly push the herd further south to inhabit the range of the Lac Joseph Herd, although further study would have to be made of this possibility before any prediction could be made.

In 1985, a commercial caribou hunt for non-residents was opened of the George River Herd on a restricted basis. Ten companies were selected by government to operate the hunt, three of which are located in the Study Area vicinity:

- Lobstick Lodge,
- Ashuanipi Aviation, and

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[9]The Wildlife Component Study has concluded that the construction of the tote road along the proposed route would allow an increase in illegal hunting of this herd and cause a resulting decrease in the total population level.

. Duley River Outfitters

An additional five (5) operators come from the Goose Bay area and one (1) each from St. John's and Corner Brook.

Some 3,000 licenses are available in 1985 with the hunt's quota set at 6,000 caribou. Non-residents must be accompanied by a licensed guide (1 guide for 2 hunters). Licenses for non-residents are $115.00. Wildlife officials indicate the hunt has great potential for expansion with proper management from government officials. Expansion of the hunt would lead to more licensed operators and an increase in the tourist plant capacity of Labrador West.

It is important to note that the migratory nature of many of the wildlife species has definite implications for the seasonality of tourism activities. The caribou movement through the area has been, and will continue to be, highly unpredictable. This movement can be seen to severely hamper development of fixed hunting camps in the area as one year's site may not be usable the next. Tracking of animal movement early in the year aids outfitters in establishing satellite (non-fixed tent) camps in a suitable area for the hunting season. In any one year, the possibility of having no caribou movement through the study area region is a real concern for local outfitters.

Typically, a summer trophy hunt occurs in the area. In the winter of 1984/85, the migration of the species was such that local residents, for the first time, were able to access the herd in the winter. This 'meat hunt' was carried out by snowmobile by a great number of area residents.

Due to the size and quality of the George River herd, there is a pilot project under consideration to commercially package the meat (2,000 - 5,000 animals per year to 20,000 in the long term) for distribution at supermarkets in Quebec. Interest is due to both potential revenue and resource management of the herd. A Quebec-Labrador joint management board has been suggested for this project.

3.2.5 Waterfowl

The proposed tote road will traverse the Smallwood Reservoir eco-region which is the most productive area in Labrador for waterfowl breeding. The reservoir itself is not used to a great extent for this purpose but the vast expanse of peat lands surrounding it are ideal habitat for various species of waterfowl. Estimates of the current numbers of breeding pairs in this area (1980-82) are shown in Tables 1 and 2 in Appendix F. Canada Geese is the most dominant species but Teal, Black Duck, Scaup, Scoters, Common Goldeneye and Red-Breasted Merganser are also common. The importance of this eco-region (Smallwood Reservoir eco-region) as a breeding area in Labrador can be seen when the total number of breeding pairs in Labrador (Table 3, Appendix F) is compared with the total number for this region (Table 1, Appendix F).This data is summarized in Table 3.11.

Forty percent of the Canada geese in Labrador breed in the Smallwood Reservoir regions as do thirty-six percent of the scoters. Data for other species are given in the table below.

Table 3.11 Total Number of Breeding Waterfowl (Pairs) in Smallwood Reservoir Eco-region as a Percentage of Total for Labrador*

Species	Labrador	Smallwood Reservoir	Smallwd. Res. % of Total
Canada Goose	22,550	9,000	40%
Green-winged Teal	16,400	5,230	32%
Black Duck	11,650	3,050	26%
Scaup	7,710	2,110	27%
Scoters	7,100	2,540	36%
Goldeneyes	4,210	760	18%
Mergansers	17,980	3,010	17%
Total Ducks	68,420	18,510	27%

*Source: Canadian Wildlife Service, see Tables 1 and 3, Appendix F of this report.

There are no accurate waterfowl harvesting figures published for the Study Area as such. Data is available for Labrador as a whole however. In 1982, there were 3,006 migratory game bird hunting permits issued in Labrador, the

number of active hunters was 2,555 and a total of 27,877 ducks and 2,776 geese were harvested.[10] Harvesting statistics by species for the years 1979-1982 are shown in Table 4, Appendix F. Labrador is referred to as Zone 2.

Hunters from Labrador City, Wabush and Churchill Falls do harvest ducks and geese in the Study Area and at present there would seem to be no cause for concern about waterfowl population or harvesting levels in the area.

3.2.6 Wood-cutting

Throughout the area traversed by the proposed routes for the tote road, there are only low volume stands of timber, producing 35m to 105m per hectare. The main areas of productive forest are shown on Figure 2.

Until recently the supply of electricity in Labrador West was in the hands of the mining companies and rates were relatively low compared to those in the rest of the province. As such, the dramatic increase in the number of households burning wood for fuel was not apparent in this area. However, Newfoundland Hydro has recently taken control of electricity supply to the area and rates are being increased gradually to levels existing in other parts of the province. It is expected that this will lead to an increase in the demand for wood as a source of fuel. Discussions with forestry resource managers show that there is an ample supply of wood in the area for this purpose and that the resource is not under or likely to come under any undue pressure as a result.

3.2.7 Moose

Wildlife officials indicate that levels of moose population in Labrador are low (figures not available). Moose are only recently beginning to enter Labrador West and are fully protected from hunting.

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[10]Data obtained from the Canadian Wildlife Service, Progress Notes, No. 143, February 1984.

3.3 The Study Area; Tourism Plant

The following section presents an overview of the Study Area's tourism plant, including its accommodations base and supporting infrastructure, and a description of the area's tourism development association. The transportation network and tourism marketing programs for Labrador as a whole are also described.

3.3.1 Accommodations and Related Infrastructure

Motels

The Department of Development and Tourism Statistics for 1984 shows a total of 11 fixed roof (motel) commercial establishments in Labrador for a total of 206 rooms. Of this number, four (4) establishments are relevant to the Study Area, providing slightly under 100 units. These include:

- Sir Wilfred Grenfell Hotel - Wabush
- Carol Lodge - Labrador City
- Lobstick Lodge Motel - Located on the Esker Road west of Churchill Falls.
- Churchill Falls Inn - Churchill Falls

Government statistics on occupancy indicate average rates of around 30 percent for both 1983 and 1984. Interviews with operators put occupancy rates slightly higher at 40 percent.

(i) The Sir Wilfred Grenfell Hotel

This hotel has 53 rooms, banquet and meeting room facilities, dining room and coffee shop, lounge, bake shop, beauty salon and travel agency.

The hotel once enjoyed capacity levels of business but suffered as mining operations and associated functions and business visitation dropped off.

The peak occupancy times at the Grenfell is during October/November; this is related to sales and business activity. May/June are the other peak months. December is the worst month with June, February and March being primarily break-even months. Labrador West is not currently a summer destination. Utilization at the Grenfell reflects this fact as July and August are viewed in the operator's perception as slack months.

Information was limited with respect to summer visitation, for the broad category of tourists the operator estimates approximately 300 room nights between May and September. This consists of 50-60 individuals and 12 groups of 20 people each on fishing/hunting trips. The latter primarily use the hotel as part of a hunting/fishing group package into Quebec.[11]

(ii) The Carol Lodge

This motel has 23 rooms, 21 of which offer housekeeping facilities. A 12 year old facility, historic visitation on an annual basis is 40-45%, with the bulk of business occurring midweek. Government and mining interests book regularly, business-related visitation accounting for almost all visitation to the motel. Some visitation on weekends is from tourists (fishermen in the fall) but this type of business usually just connects onto flights outside of the area and does not affect the operation positively.

Business peaks in September-November and April-June. Some reductions are given to regular or long-term business-related visitation off the regular $59.00 rack rate (single).

Most of promotion is done through word-of-mouth, although the establishment

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[11]Information obtained from Marshall, Macklin, Monghan Ltd., 1986, "Labrador West Tourism Development and Marketing Plan."

is listed in tourism booklets and in airline/travel agent information.

This motel is currently under receivership. When leases ended on the restaurants below the motel, the operators moved and consequently added to the financial problems of the motel. This space is currently vacant and will probably remain so in the near future.

Management would be willing to put ski packages, etc. together if the market was there.

Total occupancy rates for the Sir Wilfred Grenfell and Carol Lodge average 32%. Despite this "slack" a new hotel, the Two Seasons, is under development. It will offer 23 rooms, a meeting room facility and a dining establishment.

(iii) Lobstick Lodge Motel

This motel is located on the Trans Labrador Highway at the Intersection of the Lobstick Lake Road about 84 kilometers West of Churchill Falls. It has 10 rooms and 1-2 bedroom apartments and a dining room, lounge/bar, picnic tables and campsites. It is operated from May 15 to October 15.

(iv) Churchill Falls Inn

The Churchill Falls Inn consists of 21 modern rooms, lounge, dining room and snack bar. It serves the business community primarily.

Campgrounds

There is one provincial campground in the Study Area, located at Duley Lake, some 10km. from Labrador City. The campground has 100 sites and reaches between 80 and 100 percent occupancy over the summer months.

The park is well visited by Labrador West residents who leave their trailers

there as "summer homes". Elephant Head Park is a municipal day-use facility located 5km from Wabush. It offers community kitchens (3), swimming, canoeing, hiking and picnic facilities (40 sites) and is open noon to 10:00pm daily from June 15 through to Labor Day. It is important to note that camping is permitted on any Crown Land in Labrador.

A private campground and trailer park is under plans for construction. It is to be located on Lac Grand Hermine adjacent to the Ross Bay Junction Road (see Figure 2, 'proposed trailer park'). The owner is planning to develop the site over the next few years and to feature a number of recreational uses such as swimming, boating and hiking.

Ski-Facilities

Both downhill and nordic ski facilities are available in Labrador West and Churchill Falls. The Smokey Mountain Ski Club has a daily capacity of 900 skiers/day and the season is open from early December through to late April. There are approximately 1000 members from the local area. The Menihek Nordic Ski Club has a 40 km network of ski trails located at the base of Smokey Mountain and has a membership of between 600-800 persons. In 1984, the Club was officially designated the "High Performance Training Centre" for the Canadian National team.

Smokey Mountain Recreation Area

Located on the road to Smokey Mountain Ski area, this site offers skeet shooting, gun club, yacht club and nordic and downhill ski clubs. Each of these recreation facilities operates as a separate entity and no effort has yet been made to market the recreation site as a combined centre of many activities.

Fish Camps

These are four (4) fish camps relative to the Study Area, although not all were operating during the 1985 season. They are:

- Menihek Camp at Ashuanipi River
- Atikonak Fishing Lodge
- Kepimets River Camp
- Lobstick Lodge

Together these units are capable of accommodating up to 50 guests. Guests are flown into these camps by chartered aircraft out of Happy Valley/Goose Bay or Wabush. Guests of Lobstick Lodge arrive either by train to Esker or by plane to Churchill Falls, where they are picked up and driven to the lodge.

Canoe Routes

Canoeing is possible throughout the region. The Labrador West area, for example,is at the headwaters of the Ashuanipi. One can canoe for 10 days (some white water) on the Moisie River and reach Sept Isles. Similarly, one can negotiate from the headwaters of various rivers to destinations such as Fort Chimo and Lake Melville. Traditional canoe routes in the Study Area are shown on the Tourist and Resource Use Map (Figure 2) accompanying this report.

Lac Joseph Wilderness Area

In the mid-seventies a proposal was put forward by the former Wildlands Committee to establish a wilderness area in the Lac Joseph region.The rationale for selecting this area was that it was a prime example of a typical forested area of southern Labrador. In addition it contained good examples of ground moraine lakes,important waterfowl habitat and the Lac Joseph Caribou Herd. The Wilderness and Ecological Reserves Council are currently involved in drafting up the boundaries for the area. It is possible that the northern extent of the proposed Lac Joseph Wilderness Area may be traversed by the proposed route for the tote road,however no firm decision has yet been made.

3.3.2 Transportation Network

Transportation to and within Labrador is limited, time-consuming and expensive. The road system within Labrador is limited. All-weather roads exist in the Labrador Straits; the Lake Melville Region; and between Labrador City and Fermont, Quebec. Seasonal roads exist between Ross Bay Junction and Labrador City; Esker and Churchill Falls; and Churchill Falls and Happy Valley/Goose Bay.

The majority of travel both within and to Labrador is by air. Labrador Airways provides regular service to communities on Labrador's coast out of Happy Valley/Goose Bay. This service, however, is hampered by weather, and delays of a week or more between flights in winter months is not uncommon.

There are two (2) flights into Churchill Falls via Newfoundland per week, and an additional two (2) flights per week into Wabush via Quebec. In addition, Goose Bay and Wabush receive six (6) flights per week from Newfoundland, Quebec and Nova Scotia. This service is provided by CP Air and Quebec Air.

The CN ferry system which links central and coastal Labrador to Newfoundland, mainly through Lewisporte and St. John's, completes Labrador's transportation system.

3.3.3 Labrador West Tourism Association

The Labrador West Tourism Industry Association was established in 1982 with the objective of identifying and promoting the economic development potential of tourism in Labrador West. Organized originally by the Chamber of Commerce through the Manpower Industrial Labor Adjustment Program, the Association has a volunteer membership of 15 persons. The membership represents both industry and relevant government agencies such as Development and Tourism and Wildlife. There is no representation from the Innu on the association.

The Association's present focus lies with preparing a tourism development

and marketing plan for Labrador West with specific emphasis on exploiting the economic potential of skiing, caribou hunting and sports fishing. A consultant's report on these and other tourism-related opportunities and a proposed marketing approach was released early in 1986.

3.3.4 Tourism Development and Marketing Programs

The current tourism marketing program for the Study Area is relatively undeveloped. While a number of groups have undertaken initiatives for specific products, there has been no co-ordinated approach in identifying target markets, developing a marketing strategy and implementing a program.

The provincial Department of Development and Tourism has had but a minimal budget to divert towards the promotion of tourism. Approximately $200,000 has been the marketing budget for both Newfoundland and Labrador.

The potential for an increase in this budget was heightened in August, 1984 with the signing of the Canada/Newfoundland Tourism Development Subsidiary Agreement. The Agreement provides $21 million through programs aimed at developing a viable tourism industry. Programs which could be of relevance to Labrador entrepreneurs include:

- Tourism Incentives:
  These could provide financial incentives to the private sector for the development, expansion and upgrading of attractions, food service and accommodation facilities. Incentives include up to 50 percent funding for accommodations development and up to 60 percent funding for attraction development.

- Industry Organization:
  The agreement provides for funding to strengthen the viability of tourist associations; and for programs aimed at upgrading management training and food service.

- Marketing:
  It provides for contributions up to 75 percent to the private sector for marketing facilities; co-operative advertising; package tour development; study tours and trade show participation.

- Development Counselling:
  It provides for counselling assistance to industry operators on marketing, packaging and finances.

Under this Subsidiary Agreement, there is the potential for the tourism industry in Labrador to be given a boost. Existing entrepreneurs could access funding to upgrade existing accommodation while, if aggressive marketing is adopted, there is also the potential for new accommodation/infrastructure to be developed.

The 1986 tourism report points out however that there already exists ample opportunities elsewhere which are competing for Labrador's share of the tourism specialty markets, eg northern Quebec fishing and hunting camps. It will take both time and capital to capture some of the expanding market for Labrador operators. The Subsidiary Agreement is therefore unlikely to cause a sudden and dramatic increase in the levels of tourism.

3.4 Innu Harvesting Patterns

The Innu people, known as the Naskapi and Montagnais Indians, are the aboriginal inhabitants of much of the Quebec-Labrador Peninsula.

As nomadic hunters and gatherers, the Innu traditionally dwelt most of the year within the interior, roaming over their territory in small bands, subsisting on fish, small game and, above all, caribou. For the summer months, these bands would shift out to the coast to fish the inshore waters and, eventually, to engage in trade with the European Settlers. Over the past forty

years, this traditional settlement pattern has been replaced by a growing concentration of Innu within permanent communities, both in Quebec and Labrador.

Whereas as late as the 1950s, whole Innu families would go into the interior for eight months a year, Innu men began to hunt without their wives and children. They came mainly from the communities of Sept Isles/Maliotenam and Schefferville, plus a few from Mingan, and travelled into the interior making use of the new railway, and later using snowmobiles and aircraft. They tended to stay inland for shorter periods than before. The men concentrated their efforts on large game and fur species, so that without the women and children, proportionately less of the harvest came from small game species and fish. Exploitation of the Lac Joseph herd may well have increased initially, at least as long as the herd size remained large, due to easier access to the caribou hunting region, using the new methods of transportation. There are today, however, indications that there has been a return to the family style of Innu land use in the Study Area.

Another recent change is that Innu families from Sheshatshui now tend to hunt along the Esker Road, particularly by Simms River and in the vicinity of the turn-off to the Michekemau Fishery at Lobstick Lake. This fishery was set up in 1977, as part of the Sheshatshui Alcohol Abuse Treatment Program, but has not yet operated as a commercial venture. Up to 10 families have lived in this settlement at one time, and a large portion of Sheshatshui families have lived there for at least some extended periods. Apart from commercial fishing activities, the settlement has brought about a significant increase in the hunting, trapping and subsistence fishing activities of the Sheshatshui Innu in the Study Area. Ten to twelve Innu families have recently announced their intention to set up a permanent settlement near Lobstick and are in the process of applying for separate band status.

Innu men or Innu families from the community of Schefferville primarily use the area north of Menihek and Marble Lakes, and south of Esker along the railway line, along with others from Sept Isles/Maliotenam. The latter often live in tent camps while in the interior, but several have built cabins at

locations such as Sawbill, Oreway and Esker. These Innu from Quebec are treated as all other non-resident hunters and trappers and must comply with Newfoundland licensing and quota regulations.[12]

The annual cycle is as follows: The fall is spent fishing for lake trout and other species, hunting grouse and hare, and trapping beaver, marten, mink and fox. Some moose and caribou are killed, even though this is illegal. Many of these Innu turn their attention to caribou hunting in the region north of Schefferville during the months of January to March. Some harvesting activity also continues along the railway during the mid-winter months. In the spring, hunting continues along the railway for small game, muskrat, migratory waterfowl and fishing. Mixed small game hunting and fishing are typical of the summer months harvesting pattern.

On the basis of available information, it is estimated that there are about 10 Innu families engaged in harvesting activities along the railway in the vicinity of the Study Area. It is also assumed that there are no Innu living at any distance from the railway or the Esker Road, and that the 10 families spend on the average the months of September, October, December, April, May, June, July and August in harvesting in this region.

3.5 Community Concerns and Questions

At the outset of this component of the EIS, a scoping study was undertaken to:

- identify and isolate key concerns as expressed by residents of the area;

- identify similarities and differences in concerns or perceived impacts between different areas and groups; and

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[12]According to the Director of the Wildlife Division, Department of Culture, Recreation and Youth, Quebec Innu hunters and trappers have posed no problem to the Division.

- initiate public involvement in the impact assessment process.

The study entailed interviews with 61 key informants. Fourteen (14) of those interviewed were contacted specifically because of their involvement in tourism and recreation. However, the majority of people contacted had comments of interest to the Tourism/Recreation/Subsistence use of resources.

Summary of Scoping Study Findings

Practically everyone interviewed during the scoping study mentioned the tourism development which they feel would ensue from the opening of the tote road. In many cases, this expected increase in tourism and recreation was linked not only to the opening of the tote road but with an upgraded Trans Labrador Highway allowing the easy flow of vehicular traffic between Labrador East and West. This expected boom is also expressed by a recent article in Atlantic Insight about the potential impact of the Trans Labrador Highway, including a link to Baie Comeau.

Those interviewed saw the road being of benefit to travellers by allowing residents of Labrador West to drive across Labrador to Happy Valley/Goose Bay and take the CN ferry to Newfoundland. This is expected to represent a considerable cost and time saving to individuals and possibly increase the frequency with which they would make the trip.

For residents of Churchill Falls and Labrador East, the road would enable them to drive to Labrador City and Wabush and take advantage of various retail services.

This travel across Labrador stimulated by the opening of a road link would be given added stimulus with the discontinuation of the passenger train service at present operated by the QNSLR. Should that come into effect, the only way

out of Labrador, apart from air travel, would be via the tote road.[13] The respondent who informed us of QNSLR's plans to discontinue this service also said that the train was inconvenient in that you could spend two or three days at either end with your car in a line up.

The term "Freedom Road" was offered by one respondent who said that it would give Labradorians the freedom to engage in private enterprise. This included taking advantage of the tourism trade in many respects, eg. motel and hotel accommodation, caribou sport hunt, gas stations, fishing camps and craft development. This shopping list of development opportunities was quoted by many of those interviewed who predicted a boom in tourism with the opening of the tote road.

Interviewees felt that residents of both Labrador East and West would visit and holiday in each others region. Both they and non-resident tourists would take advantage of recreational resources in the interior. Several people mentioned that growth in Labrador had been stunted by a poor transportation network and they saw a Trans-Labrador Highway as vital to fostering economic development in the region and increasing the viability of one industry towns.

In terms of non-resident tourism, it was felt that package tours could be offered which would include fishing, hunting, hiking and white water canoeing, although in many cases these recreational opportunities are not directly related to the opening to the tote road. Both resident and non-resident tourism would stimulate business for outfitters, guides and camp operators, among others. A representative of the Labrador Craft Producers Association stated that an increase in traffic into the area would boost sales in the craft industry and make it cheaper to market products in Labrador via a road link. They were going to institute a training program for local people to supply handicrafts to meet the increased demand.

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[13]This does not take into consideration the fact that the link from Fermont to Baie Comeau is likely to be completed in the very near future and will affect this expected pattern of Trans-Labrador travel.

Although there were a wealth of positive comments about the effect of the tote road on tourism, some negative comments were also received. One person stated a high concern for depletion of fish resources in the vicinity of the road and said there would have to be stiffer regulations to avoid this. The owner of the Lobstick Lodge was also worried about loss of business if the proposed route went ahead and wondered who would compensate him for this.

Several cabin owners on the Esker Road were also concerned about winter access to their cabins if the proposed route were constructed. Many concerns were expressed about the increased recreational and subsistence use of resources resulting from the tote road project, and particularly in the long term (ie., an all-weather road with a link to Quebec).

Several people were more realistic than others in talking about tourism potential. They felt that this potential would not be realized unless there was an aggressive advertising campaign to try and encourage non-resident tourists to come to Labrador. Another respondent felt that a seasonal (as opposed to an all-weather) road may preclude some of these developments. In any event, development would depend on general economic conditions and the initiatives taken by people outside Labrador.

The Innu people interviewed were particularly concerned about the preservation of resources in the long term. Some wondered whether increased access to resources would result in more stringent wildlife regulations, to the disadvantage of Labradorians.

CHAPTER 4. FUTURE CONDITIONS

4.1 Without the Tote Road

The information presented in the preceding chapter has outlined current levels of tourism, recreation and subsistence use of natural resources in the Study Area. The aim of this section is to predict future levels and patterns of these characteristics, should the tote road not be built. From the information on hand, it is highly probable that there will be little significant increase in either the numbers of tourists visiting the Study Area, in tourism infrastructure or in the subsistence use of natural resources under a no-road scenario. Given a change in marketing approach and an upgrading and expansion of facilities/infrastructure, however, Labrador does have the potential to capture a fair share of several specialty markets. These are discussed below.

4.1.1 Tourism

In order to predict probable future levels of tourism within the Study area, it is necessary to consider trends affecting the tourism industry at the national and even international level. In addition to these trends, marketing approaches adopted by the provincial and Canadian governments will be extremely important in influencing the number of tourists visiting this area. The proposals for the Labrador West area outlined in the Marshall, Macklin, Monaghan report could also be very influential in determining the level of tourism if they are carried through. These will also be summarized.

These factors will also be of relevance in assessing the impact of the tote road on tourism in this area.

4.1.2 Key Factors Affecting Tourism in the 1980's and 1990's

The three most widely discussed factors affecting tourism in the eighties are energy, inflation and demographic changes. These factors have not only

affected the number of tourists travelling, but have also affected the expenditures, preferences and psychology of the tourist.

(i) Energy

When the OPEC cartel emerged on the scene in the early seventies, energy gained an importance in the consumer's mind like never before. In the latter seventies, fuel shortages had a profound effect on the number of travellers to Atlantic Canada from the United States.

In attempting to reduce fuel consumption, automobiles have become smaller and more fuel efficient. Fewer large recreation vehicles are seen on the roads. Vacations are taken closer to home in an attempt to reduce the fuel portion of the vacation dollar.

As well, the type of vacation taken has also been affected in that the auto traveller and the recreation vehicle (RV) traveller looks for destination points which supply a full range of services and activities rather than circuit travelling throughout a region. The destination area serves as a home base from which the traveller can take short side trips, thus reducing fuel consumption by increasing his length of stay at one spot.

Together, fuel shortages and the rising cost of fuel have resulted in a reduction in auto travel to the Atlantic Region and an increase in the use of mass modes of transportation. There has also been an increase in inter-modal travel as the tourist attempts to combine the mobility and flexibility of the automobile with money-saving mass modes of transportation. The fly/drive, rail/drive, and fly/camp markets are examples of this inter-modal travel.

The reduced concern about fuel shortages and the dropping of the international price per barrel of oil have lead some economists to predict that fuel will no longer be a number one concern for travellers. However, the rising cost of gas at the consumer/retail level and the psychology of fuel conservation will remain an important factor in travel considerations throughout this

decade.

(ii) Inflation

Several years of high inflation have had the effect that travel growth cannot be taken for granted anymore, at least not at the rates of growth once enjoyed. People will always feel they have the right to and deserve a vacation. However, rising prices in transportation, food and housing have greatly impacted on the amount of discretionary income the consumer has to spend on a vacation.

The inflation rate is expected, despite recent fluctuations, to continue at high levels over the next few years. With real incomes not rising as rapidly, growth in consumer spending is likely to remain subdued.

Rising prices have had the effect that the tourists of the eighties are more discerning and more demanding. They seek quality from every portion of their vacation dollar. The tourist, rather than give up a holiday totally, is learning to economize by travelling to vacation spots closer to home, taking fewer trips and increasing the length of stay at one destination. Many more are using mass modes of transportation and purchasing packaged vacations where costs are discounted and details are conveniently taken care of.

(iii) Demographic Changes

Changing demographic trends appearing in the tourism market will impact not only on attraction development, they will lead to adaptations in fixed-roof accommodation, restaurant and campground development. These trends will combine with economic impacts in the tourism market, requiring adaptations in all facets of the tourism sector.

One of the most noted demographic trends is the fact that the populations of Canada and Canada's major tourist markets are ageing. In Newfoundland and

Labrador, the percentage of those in the 20-44 age group has risen considerably while the percentage of those in the young dependent age group has decreased. The percentage of population in the older age groups will also increase as the children of the baby boom era mature.

Another trend, which helps to offset declines in discretionary income, is that more and more women have entered the work force in previous decades. There has been a substantial increase in two-income families. These families have fewer children, greater leisure time and more mobility. Single individuals and single parents are also increasing in frequency due to later marriages, divorce, or alternative life styles.

Populations are not only ageing and changing family patterns, they have a heightened public awareness and higher levels of formal education. These demographic changes combine with the economic impacts mentioned previously to create a population more sophisticated in their vacation needs. The tourists of the 80's are seeking self-gratifying and educating experiences and, at the same time, greater quality and service for their vacation dollars spent.

A summary of the implications of these and other trends for the tourism industry in Labrador West is presented in the 1986 Marshall, Macklin, Monaghan study. They are as follows:-

- All facilities and attractions, especially accommodation establishments must give value for money.

- The tourism industry must be directed towards the attraction and satisfaction of specific target markets - primarily those with special interests for which there are appropriate resources in the region.

- The tourism industry must offer a unique and distinct vacation experience not available elsewhere and certainly not available within the same travel radius from target markets.

- The industry must cater to a relatively sophisticated market which is

demanding more than the traditional "sun - and - sand" vacation.

4.1.3 Marketing

At the national level, Canada's Minister of Tourism, has recently, announced a change in marketing approach directed towards our largest foreign market, the U.S.A. In the past the thrust of Canada's marketing has been to portray Canada as a land of wide open spaces - the northern wilderness has been the major selling point. Americans were attracted north to fish camps, wilderness trips and big game hunting etc. However, the focus of marketing has now switched to selling Canada's cities, its night life, its culture and it is indeed doubtful if Labrador will see an increase in tourists from the U.S.A. as a result of this kind of advertising.

At the provincial level, the Department of Tourism and Development has increased its marketing budget substantially and tourism development is rapidly becoming a desirable goal for many local and regional groups trying to foster economic growth. CN Marine has recently announced that it will undertake some "selective marketing" with regard to the ferry service to and from Labrador in that it will reserve a certain percentage of seats of this run specifically for tourists during the summer months. This may bring a few more tourists to coastal Labrador and Happy Valley/Goose Bay but is unlikely to have any impact on the Study Area without a good road link from there to the coast.

4.1.4 Market Potential

According to the recent tourism study (1986) the following specialty market groups offer the most potential for expansion in this area:-

- fishing market
- big game market
- wilderness adventure market
- alpine skier market
- nordic skier market
- general interest package tour market
- special events market.

It is important to note that these are areas which offer the potential for expansion in future. No attempt is made to forecast the future numbers of tourists associated with each market. It is generally impossible to estimate the true size of each market group accurately for a destination without having a clear definition of development and infrastructure that will be put in place at that destination.

A relatively new and increasingly growing segment of the tourism market which Labrador has the potential to tap into is the wilderness travel industry. It is made up of:

- guided and non-guided wilderness trips
- big game hunting
- sports fishing.

The total North American market for these three groups has been estimated at about 3.5 million (1985). It is estimated to have grown about ten (10) percent per annum in the early 1980's. Predictions are that it will expand eight (8) percent in the latter half of the decade and approximately five (5) percent per annum during the 1990's as the market matures. By 1990, this market is expected to reach about 8.5 million.

Table 4.1 Below shows the Origin of Tourists for Wilderness Trips for the Yukon ,

Table 4.1 Origin of Tourists by Person Days for Guided and Non-guided Wilderness Experience Tours

	Long-Term Guided Wilderness Experience %	Short-Term Guided Wilderness Experience %	Non-Guided Wilderness Experience %
Yukon	7	35	
B.C./Alberta	7	18	-
Rest of Canada	11	-	20
U.S.A.	50	41	50
Western Europe	24	6	30
Rest of World	1	-	-
Total	100	100	100

Source: Yukon Tourism Study.

It is the U.S.A. which dominates the market in all three categories. Big game hunting and fishing also attract West Europeans to a lesser extent, while Canadians form a sizeable percentage of the sports fishing market. If these findings can be applied to a marketing approach for Labrador, then it would appear that effort should be directed at the United States (for all these activities), Western Europe (for wilderness tours and big game hunting) and Canada (sports fishing).

To test the appeal of Labrador in the wilderness market, telephone interviews were held with operators of five companies in the business of operating wilderness tours. Of the companies contacted, none presently send tours to Labrador while one sends tours to Newfoundland. An additional two companies have in the past sent tours to Newfoundland (the island).

In response to the query "if interest exists" or "might exist" for wilderness Labrador tours, the answer from all of them was discouraging. One company, "Questors" out of New York, stated that their company had run tours to Newfoundland but it had been taken off the company's itinerary for the past several years, as there had been little or no interest on the part of the tourist market. "Questors", on the other hand, does send tours from New York

to the Yukon. Why the Yukon and not Labrador? The answer was clear. The lack of marketing on the part of the province and industry was the major factor. Both the Yukon and Alaska have aggressive marketing programs, detailing the respective areas and their attractions.

"Canadian Nature Tours" out of Ontario has put together, on paper, tours of Labrador but has received no response from the public. This company does however operate a whale watching tour off the coast of Newfoundland.

Other reasons cited for not sending tours into Labrador apart from the lack of information/marketing were

(i) the difficulty (in terms of flight schedules); and

(ii) expense in getting to Labrador.

Typically, the price of a wilderness tour does not include the cost of arriving at the start of the tour; or for that matter, planning the logistics of arriving. Pre-travel costs then are in addition to the tour itself.

While the results of the telephone survey were disappointing, they were not altogether unexpected. Between the Department of Development and Tourism's limited marketing budget, and a largely unorganized industry, it should not be surprising that North America tour operators have not put Labrador on their map of wilderness activities.

Sports Fishing

Data presented in Chapter 3 indicates that the quality of the fish resource in the Study Area makes it an attractive one for the sports fisherman. In addition the market for this activity is expanding slightly with time, in particular the N.E. U.S.A. market.

While Labrador does offer an excellent resource base, the sport fishing market from which it hopes to draw is currently presented with a varied and extensive selection of sport fishing opportunities. Canada's resource base, in terms of her rivers and streams, is extensive and much promotion by lodges,

camps, tourism associations and government agencies is ongoing. Individual operators have become more sophisticated in their marketing approaches, working with travel agents, tour wholesalers and airline companies to package all-inclusive fishing trips. Additionally many such opportunities are accessible by road in addition to scheduled air charter.

Northern Quebec offers a multitude of fishing opportunities in the Fort Chimo, Schefferville and Caniapiskau areas. Several of the tour operators use Wabush airport for access and provide transportation to fish camps across the border in Quebec. In total it is estimated that 1000 fishermen a year come as tourists to Nouveau Quebec for char and salmon. "Northern Quebec Vacation Adventures" is a joint marketing venture between Nordair, various tour wholesalers in Quebec and the U.S., the Quebec government and various Quebec camps. Clients are predominantly from the U.S. and the overall trend is towards a 5-10% increase each year for these destinations.

With aggressive marketing efforts there is every reason to believe that the Study Area could capture an increasing share of this tourism market. The recent tourism study (1986) has recommended that an additional 10-12 fishing/-hunting fly-camps be established in the Study Area.

Caribou Hunting

Potential is also strong for expanding the caribou hunt, as evidenced by the first year's response from non-residents interested in participating in the hunt. This market has been very successful in Quebec and indeed Labrador West is used as a "staging post" by hunters and fishermen who fly in there and connect with traffic to Quebec hunting camps.

Visitation estimates of resident and non-resident hunters in Northern Quebec is 4000[14]. With proper marketing efforts there is little doubt that the Study area is capable of expanding and capitalizing upon its excellent wildlife resources.

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[14]Henri Jamet, Quebec Tourism Consultant for Northern Quebec.

4.1.4 The Significance of Marketing

Since the competitive global marketplace is undergoing fundamental changes in demographic structure, income distribution, modes of travel and consumer behavior patterns, Labrador cannot expect increases in tourist traffic irrespective of its marketing effort.

Changes in the marketplace are accompanied by changes in the competitive environment. Other travel destinations are successfully selling packaged vacations, holidays offering a wide range of activities and services in a concentrated area, and specialized vacations appealing to specific market segments. Other destinations are aggressively entering the market place for the same clients.

(i) Domestic Markets

During these times of economic constraint, the Atlantic Region itself is one of Labrador's greatest markets. While overall Atlantic Region visitors have declined to the province (Nfld. & Lab.), their percentage of total non-resident visitors have remained at roughly 38 percent, making the Atlantic Region the province's largest market. In addition to its being the largest market, the Atlantic Region provides the province with its greatest potential for repeat travellers.

Within Canada, fewer Canadians are travelling to foreign destinations. Nationally, the domestic market continues to account for Canada's largest share of tourism revenues, particularly from Ontario, Quebec, Alberta and British Columbia. A nation-wide pattern which should also hold true for Labrador is that the main source of visitors for each province is its own residents (except P.E.I.). Usually the adjacent province is the second largest source. In Labrador's case however, Ontario and the Maritimes exceed Quebec.

The marketing of Labrador must recognize the traditional importance of these markets and design campaigns to tailor specific message appeal to the individual markets. The American market is equally important to Labrador and must receive continued marketing emphasis.

(ii) Labrador's Future Markets

A greater sophistication in market research will aid in defining appropriate potentials for Labrador to take advantage of new opportunities in the tourism sector. Research must go hand-in-glove with marketing to allow more efficient, targeted use of promotional dollars. Provincial marketers and tourism managers in the field will require accurate, up-to-date information and advice as to which potential new markets hold enough promise, by virtue of demographic, income and travel-behavior characteristics and accessibility to Labrador, to be worthwhile motivating.

Labrador must increase its awareness of the type of market where incomes are rising at a faster rate and where people use a larger share of their discretionary income to travel. In the overseas markets, Japan and Germany have shown potential for becoming important markets in this respect. In addition, this becomes particularly important when the province's summer season capacities are considered. If the tourism plant is close to full during the high season, it would be of great advantage to be filling that plant with tourists who will be spending more vacation dollars per trip and per day during their stay.

(iii) Packaging

Vacation packaging is becoming a growing element in the tourism industry involving both group packages such as the bus tour vacation and individual packages such as the fly/drive, fly/camp vacation.

The European market also contains varied segments which must be approached on an individual basis. The traveller from the United Kingdom generally comes

to Atlantic Canada to visit friends and relatives. German travellers look for outdoor experiences such as fishing and hunting. Though these are generalizations, Labrador's plant and promotion must be able to accommodate these differing package requirements if it hopes to appeal to the overseas visitor.

Vacation packaging in the 80's and 90's, will have to appeal to the special interest markets. The tourist will be looking for value for the dollar, and more and more, tourists will want to know the cost of their vacation prior to decision and commitment. They will seek out convenient, discounted, all-inclusive packaged vacations and will expect fulfillment of their vacation expectations.

The Department of Development and Tourism is beginning to work with the region's major carriers in linking seat sales with pre-booked accommodations to provide an attractive travel package. Also, the major carriers such as CP Air, Air Canada and VIA Rail are developing special low fares and entering the packaged vacation markets through subsidization.

The industry itself (individual operators and region) will also have to become more involved in advertising, promotion and marketing of specialty tours for their area.

In the present economic situation however, the temptation to reduce marketing budgets must be resisted if Labrador is to increase its share of the benefits of the tourism industry. As well, individual operators will have to learn and use the skills of marketing, improve information materials, explore co-operative advertising opportunities and coordinate with other operators to realize their tourism potential.

4.1.5 Subsistence Use of Natural Resources

Given no large scale population increase in the Study Area[15] and no increase in accessibility to natural resources it is reasonable to assume that the subsistence use of natural resources will continue at current levels. Our discussions with officials responsible for management of these resources in the Study area have shown that there is little cause for concern in resource use/harvesting at present levels. Resources currently under pressure are protected by legislation eg Lac Joseph Caribou herd. In addition the Crown Lands Division has firm policies in place to control further ad hoc cottage development in this and other areas and has clamped down on cabin development in remote areas.

4.2 During Construction of the Road

Generally when an environmental impact assessment is undertaken, attention is paid to determining the impacts of the actual construction of the project on the impact area. In the case of the proposed tote road, construction - related impacts are most relevant to the Bio-physical analysis, and the Fisheries and Wildlife components. Apart from visual impacts created during construction, the actual construction period is expected to have little or no impact on tourism or local hunters, trappers or fishermen. The exception may be with the Innu. However, these impacts are discussed in the Native Resource Use Component Study. Construction of the tote road is expected to occur over seven (7) summers. Work on the road would proceed from both ends simultaneously. The labor force would be housed in camps of mobile trailers at each end of the route as required. Because the camps are mobile and small in size, there would be no short or long-term impact on the Study Area relevant to the tourism-re-creation analysis. Further, it is assumed that the camp contractor would follow all required environmental regulations in using the site and cleaning it up after use.

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[15]See Socio-economic Component Study of the Tote Road EIS.

4.3 Two Years Post Construction

This section is concerned with identifying key impacts related to tourism and recreational use of natural resources in the Study Area due to completion of the tote road.

The assessment is discussed under four (4) headings:

- tourism-related impacts
- recreation-related impacts
- cultural-related impacts
- visual-related impacts.

As a general framework for this impact assessment, attention was paid to the concerns and questions raised by residents of Labrador West, Central and East regarding the proposed tote road. A summary of these was presented in Section 3.5 under Existing Conditions.

4.3.1 Tourism-Related Impacts

Tourism-related impacts are defined as those impacts relating to the tourism plant and non-resident and resident visitor travel.

The supposition has been that the construction of the tote road would open up the doors of tourism in Labrador. Such has not been the finding of this impact assessment however. By and of itself, construction of the tote road will have minimal effect on tourist-related travel to Labrador. Even when the Trans Labrador Highway is completed, large numbers of non-residents travelling to Labrador for vacation purposes can not be expected. To get any significant amount of the rubber tire non-resident market will require an extremely competitive marketing effort on the part of government and individual operators. The road should facilitate regional travel within Labrador, however, and will likely lead to significant travel out of province by the resident population on vacation.

(i) Impact on the Tourism Industry Non-Resident Market: Sports Fishing/ Hunting

The majority of the non-resident tourist market (excluding the expatriate portion who return home to visit friends and relatives) visit Labrador to engage in sports fishing and sports hunting. This market flies into Happy Valley/Goose Bay or Wabush and then continues on to their specified camp by chartered aircraft. The existing sports fishing/hunting market therefore, would not benefit from construction of the tote road as roads are not required for transportation in or out. Further, few businessmen on vacation for a week would look to spend one or two of those days on the road when air transportation was available.

It has also been suggested that construction of the tote road could have a detrimental impact on the industry. Much of the appeal of the wilderness experiences lies in Labrador's primitive environment. This appeal could be lessened should a road be constructed.

Resident Market

Residents living in Labrador West and Central would likely utilize the tote road for trips between their region (shopping, sports events and business) as well as to Happy Valley/Goose Bay and thence to Newfoundland. The purpose of this travel would be vacation-related (visiting friends and relatives and travelling out-of-province). Considerable travel from east to west for similar purposes could also be expected, should the tote road be constructed and other segments of the road upgraded. A conservative estimate of trips taken by residents utilizing the tote road for visiting friends and relatives and for vacationing out-of-province is given as 6000 per year. When regional travel is added, total resident travel on the road could reach 12000 - 16000 trips a year.

Non-Resident Auto Market

A benefit-cost study (Noah,1975) on an all-weather Trans Labrador - Quebec Highway indicated that the largest impact on tourism would be the general motoring public, and that approximately 80,000 trips a year would be taken along the proposed route. The Trans Labrador Link, when connected to Baie Comeau, could provide a circuit tour from Quebec, across Labrador, to Newfoundland and through the maritimes.

A more recent study (ADI Ltd., 1984) substantially reduced this estimate to 8000 non-resident trips per year. This estimate was arrived at through discussions with tourism and transportation officials and was based on a 'low quality tote road'. This projection has been accepted by the Study Team as a valid estimate. Tourist-related expenditures resulting from these trips would approximate $1.6 million at $200 per trip).

The potential to increase the projected 8000 trips will be tied directly to the marketing efforts of industry and government. With no major tourist attractions to offer the visitor apart from the wilderness experience, coupled with the long distances required to travel from other parts of Canada and the U.S., clever marketing will be required to even attract a portion of the wilderness market.

Existing Operators

Existing fishing camps would not be impacted either way by construction of the tote road. The Lobstick Lodge, however, which operates both as a camp and a motel, would be impacted should the proposed route be selected over the alternate route. Located on the Esker Road, the Lobstick Lodge accommodates travellers between Churchill Falls and Labrador City/Wabush and patrons who fly into the region and are driven to the Lodge from either the Esker siding or the Churchill Falls airport. If the proposed route is selected then the Lobstick Lodge will lose drive-through business.

Potential Operation

A trailer park and campground is being developed on Lac Grande Hermine on the Ross Bay Junction Road and should be open for business by 1987. The headwaters of the Poisson River and Ossokmanuan Lake areas have high potential for a fish camp or related tourist lodge. Operations such as these would be important additions to the area's tourism plant.

The location of a camp adjacent or having access to the Lac Joseph area however may have implications for the Lac Joseph Caribou Herd, already under severe stress. A more complete analysis of the negative impacts on the Lac Joseph Herd is contained in the Wildlife Component of this EIS.

4.3.2 Recreation-Related Impacts

Recreation may be defined in a broad sense as "any activity done for pleasure," including all types of active and passive recreational activities. In this assessment, activities selected for analysis include sports fishing, hunting and trapping, and general enjoyment of the outdoors.

(i) Cabin Development

Construction of the tote road would enable greater access to the Study Area. As well, cabin development will increase, as evidenced by the number of applications for cottage development along the Ross Bay Junction Road, since the completion of construction. There has already been interest expressed in cabin development on the headwaters of the Poisson River, in anticipation of the proposed route being constructed.

The most significant negative impact relating to further cabin development is related to development around the Poisson River headwaters. The Lac Joseph Caribou Herd ranges north and south of the proposed route and some animals would be within range of the cabin development. There would be excellent

access to the north and south by ski-doo in winter and all-terrain vehicle or canoe in summer.

(ii) Resident Sports Fishing

Increased cabin development will lead to more resident sports fishing. In addition, construction of the tote road (proposed route) would open up several water systems, principally Lake Ossokmanuan for resident fishing. Access to these water systems will provide access to the countryside to the north and south. Existing fish camps on the Atikonak and Kepimets may be reached via the Atikonak and Poisson River systems respectively. No negative impacts on fish stocks are expected due to increased access to the waters of the Study Area.

(iii) Hunting and Trapping

Construction of the road would increase ease of accessibility to the entire area. More hunters and trappers will be able to gain access to the area through use of regular passenger vehicles when the road is open for regular travel during the summer months and by snowmobile when sufficient snow cover closes the road to passenger vehicles during the remaining part of the year. Due to a combination of high productive capacity and the level of hunter/trapper interest, small game and fur-bearers would probably not sustain any major negative impact.

However, illegal hunting continues to be a major detriment to attempts to improve caribou and moose populations in both insular Newfoundland and Labrador and any increase in the level of accessibility will only aggravate the ability to conserve, manage and protect the drastically reduced Lac Joseph caribou herd and the relatively small growing moose populations of the area.

Furthermore, compared to the alternate route, the proposed route would maximize the undesirable impact upon both big game species. Relatively huge areas of western Labrador, including most of the proposed Lac Joseph Wilderness

Area, would consequently become easily accessible by snowmobile in the winter and by boat or all-terrain vehicle in the summer.

In contrast, while the alternate route would also enhance accessibility, it basically conforms to the current corridors used by the Quebec North Shore and Labrador Railway and the highly used and maintained Esker Road. The large lake-boreal forested plateau in the drainage area of Atikonak and Lac Joseph Lakes and thus the current core range for the Lac Joseph Caribou Herd, would not be challenged. The only topographical increase in accessibility would be to enable passenger vehicles to travel between Ross Bay and Esker. The general route is already used by the QNSLR, snowmobiles in the winter and a few boats on Ashuanipi River in the summer.

Waterfowl

It is probable that, with the increase in accessibility caused by the opening of the tote road, the waterfowl resource in the Study Area will come under increasing pressure from hunters. The province of Newfoundland has a very high hunter population. Indeed there are as many duck licenses issued in this province as in the rest of Atlantic Canada combined. Should the tote road follow the proposed route, there will be a large new area opened up to hunters. The waterfowl which breed in this region are migratory birds and are subject to harvesting pressures both in their breeding area and in their winter range in the northeastern USA.

Although it is not possible to predict with any degree of accuracy what this pressure might be once the tote road opens, a comparison with the island portion of the province serves to highlight the nature or potential of the problem. Before the Trans-Canada Highway was built, only about 30 percent of the total waterfowl harvest in the Atlantic Flyway was taken in Newfoundland; the majority (70%) of the birds were harvested in the N.E. of U.S.A. With the increase in accessibility, caused by the T.C.H. and many spur roads off it, the harvesting statistics have been reversed in just 20 years. Now 70% of the harvest takes place on the island of Newfoundland and the northeastern states are beginning to demand an increased share of the harvest. A similar pattern

could follow in the case of the tote road. However, due to the smaller population in Labrador and the improbability of many spur roads being constructed, the magnitude of the problem could be much less.

(iv) Camping

It is expected that construction of the tote road would lead to increased demand on Duley Lake Provincial Park. The Park is presently experiencing high occupancy rates in the summer months and is restricted in expanding its site capacity.

Some of the additional demand created by the tote road (proposed route) would be accommodated through construction of the trailer park and campground proposed for Lac Grande Hermine, and cabins on the Ashuanipi River.

4.3.3 Cultural - Related Impacts

The Innu are directly tied to the natural resources of the Study Area for both their physical and spiritual well-being. While the Innu over the past two decades have increasingly adopted the lifestyle of the western world, evidence exists to indicate a movement back to the traditional lifestyle dependent upon subsistence use of Labrador's natural resources.

While the tote road itself may pose no immediate threat to the lands and wildlife that concern the Innu of Sheshatshui, it is commonly assumed by the Innu and by Labradorians in general that construction of the tote road will inevitably lead to further upgrading of the adjoining sections, culminating in completion of an all-weather highway traversing Labrador and connecting with Quebec. They also assume that this in turn will most certainly lead eventually to the industrial development of various resources such as minerals and water which can thereby be accessed. Such development is viewed by the Innu leadership as particularly threatening.

As yet, the Innu have not commenced either negotiation or litigation in

their efforts to gain recognition for their rights. This could change, however, once development becomes more immediate. The Innu could choose to seek an injunction halting development, as did the Cree of James Bay. Should the Innu pursue negotiation, it is likely that they would claim compensation for lands and resources alienated by development.

It is recommended that the government include Innu leadership in the development of all management plans for the Study Area, should either route for the tote road proceed.

4.3.4 Visual Related Impacts

Impacts on the landscape resulting from construction of the tote road can be grouped under three main headings relating to different characteristics of the landscape. These are "visibility", naturalism", and "open space patterns".

"**Visibility**" relates to the distance from which a feature can be seen. This is determined by a landscape's ability or inability to absorb or hide the object. Visibility is also related to whether people will be able to see it while driving down the road.

"Naturalness" is an assessment of the degree to which the landscape has been changed from its original state. The less the alteration, the more natural the landscape is said to be. The alignment of the road, the borrow areas and maintenance depots provide an obvious contrast with a natural landscape.

"Open Space Patterns" are created by the interplay of land form and forest cover.

There are various aspects of the actual road alignment and construction which could negatively impact on these factors. These include gravel pit operations, the shape of borrow areas, the site of the construction camp, the elevation of the centre line and the location of intersections. Some examples

of potential landscape change, on both the proposed and alternate routes, are given below and appropriate mitigative measures are listed in Chapter 6.

Examples

(i) The road should be designed in such a way that caribou can see across the road, otherwise they may perceive it as a barrier and may not cross it. The elevation of the centre line should be as low as possible and side slopes should be graded to make a smooth transition to adjacent, undisturbed land.

(ii) The area adjacent to large water bodies, eg. Lake Ossokmanuan, has high recreation potential. These sections of the road corridor on either the proposed or alternate route display dramatic visual change and extensive areas where land and water meet. When extracting borrow material in these areas, interference with the long views should be avoided.

4.4 Ten Years Post Construction

The impacts discussed in this section assume the establishment of an all-season Trans-Labrador Highway connected to the national highway network at Baie Comeau.

With the existence of an all season Trans-labrador highway linked to Baie Comeau there is the potential for a substantial increase in rubber-tire traffic to the Study Area both in summer, for general touring, and in winter, to access the ski facilities in Labrador West. Whether this increase in tourism ever materializes will depend on marketing approaches undertaken by individual operators and the provincial government.

4.4.1 Resident Travel

The upgrading of the road network will also lead to a substantial increase in resident travel in Labrador as is evident from the results of the survey carried out during this work (See Appendix H, Socio-Economic Component Study). The results of this survey which are of relevance in assessing the impacts on tourism and the subsistence use of natural resources are presented below.

(i) An All Season Tote Road from Labrador City to Churchill Falls

Responses in this section assume no upgrading of the Churchill River Road and no link to Baie Comeau.

If the tote road were to be kept open all year round, 61% of the total number of respondents stated they would use it in winter. The percentage replying in this manner was highest in Churchill Falls. These people would use it mainly to take advantage of shopping facilities in Labrador West and to visit friends and family. Of the total sample, the largest percentage stated that they would use the tote road in winter to leave or go on vacation. The percentage in this category was highest for Labrador East and for them the road offers a relatively cheap alternative to air travel and the option of winter travel when CN Marine is not operating during the winter months. Should the QNSLR drop its passenger service from Labrador City to Sept Isles however, this would not prove feasible.

Should an all-season road follow the alternate route, there would likely be a substantial increase in the number of people travelling the Esker Road from Churchill Falls to take advantage of shopping and recreational facilities offered in the Labrador City/Wabush area. As a result of this, the Lobstick Lodge would in all probability experience a substantial increase in business serving the travelling public. If the proposed route is chosen, Lobstick Lodge would probably experience a considerable reduction in drive-by business.

An all season tote road may exacerbate the negative impacts which members of the Innu community feel will almost definitely result from development. These

include increased access to the Lac Joseph Caribou herd, a general increase in traffic in the area and increased potential for other developments related to the road.

(ii) An All Season Trans-Labrador Highway

With the completion of the tote road from Labrador City to Churchill Falls, there will undoubtedly be pressure exerted on government by Labradorians for the upgrading of the existing "Freedom Road" from Churchill Falls to Happy Valley/Goose Bay. Should this occur, there would be a good quality highway linking Labrador West with the Happy Valley/Goose Bay area and significant impacts are likely to occur. The most important of these impacts will be changes in resident travel patterns and an increase in the number of non-resident auto parties visiting the Study Area.

Seventy-six (76%) percent of those interviewed during the resident survey said they would make use of such a road. The community of Churchill Falls was the one with the highest percentage of people responding in this way. The lowest percentage (54%) was found in Labrador West. The main reason residents said they would use the Trans-Labrador Highway was to leave Labrador on vacation and, to a lesser extent, to visit friends or family. Interestingly, it is residents of Labrador East who will make most use of the road for this reason. Only 24% of residents from Labrador West said they would use the road for this purpose.

The Trans-Labrador Highway will offer alternate shopping facilities to residents of Churchill Falls - 40 percent of those interviewed said they would use it for this reason.

(iii) All Season Tote Road Linked to Baie Comeau

As has been mentioned before, it is highly probable that the remaining section of road between Labrador City and Baie Comeau will be completed before the tote road to Churchill Falls. With the completion of the link to Baie Comeau will come the first direct road link to the rest of mainland Canada.

Almost everyone interviewed said they would use this road (88%) and the main reason again would be that it offers an alternative means of leaving Labrador on vacation. Surprisingly, there was no difference in the percentage of residents from Labrador East and Labrador West who would use the route to Baie Comeau for this purpose. It seems surprising that residents from Labrador East would drive West to leave on vacation rather than use the current service offered by CN Marine. Alternatively, the road to Baie Comeau may offer a change in vacation patterns for Labrador East residents and many more of them will now find the rest of mainland Canada an attractive and feasible vacation destination.

In addition to the increase in resident travel outlined above, there will be impacts on non-resident tourism and the subsistence use of natural resources. These are dealt with below.

4.4.2 Tourism Impacts

(i) Road development into the Study Area will allow a small percentage of fishing clientele to drive to Wabush/Labrador City/Churchill Falls to access local fly-in transport to camps, thus:-

(a) increasing total visitation; and

(b) encouraging overnight and more extended stay in the centers themselves.

(ii) With regard to big-game hunting, road access to the Study Area will substantially reduce the cost of accessing the area in the long-term; bringing in more local markets seeking a low cost expedition. More distant markets will continue to use all routes.

(iii) Many tour operators contacted for the 1986 Tourism Study saw Labrador as having long term potential for general interest touring.

(iv) The wilderness tour market of kayaking, canoeing, backpacking is

growing and with proper marketing, Labrador could capture a share of this market. Road access would make tours cheaper and enable an increase in non-guided tours to take place.

(v) With the proposed military expansion at Happy Valley/Goose Bay and the existence of an all-weather highway to Labrador West, there is the potential to increase the number of people coming to ski in Labrador West. Exchange visits by teams from Labrador West, Churchill Falls and Happy Valley/Goose Bay would also be possible. In addition there could be expansion in the ski market with people from north shore Quebec travelling north to ski.

(vi) With the completion of the road link from Fermont to Baie Comeau it is likely that a sizeable percentage of the tourists now travelling as far as the Manic 5 dam would travel on to the Study Area.

4.4.3 Subsistence Use of Natural Resources

With the increase in resident and non-resident travel through the Study Area, made possible by the existence of an upgraded Trans-Labrador Highway linked to Baie Comeau, there is the potential for increased pressure on natural resources. Potential impacts on natural resources ten years post construction are as follows:-

(i) Due to the abundance and quality of the fish resource in the area, there is unlikely to be any negative impact on it associated with the potential increase in sports fishing.

(ii) The increase in accessibility opens up the potential for an increase in illegal hunting of caribou. This is particularly important with regard to the Lac Joseph herd, should the proposed route be selected.

(iii) The increase in both accessibility and the numbers of people

travelling through the Study area could have serious negative impact on the waterfowl resource. This impact is discussed at length in Section 4.3 and the same applies to this scenario. The only difference is that the level of impact would be greater under the 10 years post construction scenario.

(iv) Trapping is primarily carried on by the Innu and by a small number of local residents. With no significant increase in resident population expected in the Study Area, there is unlikely to be any significant impact on trapping caused by the tote road in the long term. Construction of the tote road on the proposed route would significantly increase access to a larger trapping resource.

(v) Applications for cabin development on Crown Land will probably continue in the long term. However, this type of development is now carefully controlled by the Crown Lands Division and problems of ad hoc cabin development are unlikely to occur.

CHAPTER 5 SUMMARY OF FINDINGS

The information presented in this chapter summarizes the main findings of the tourism component study as presented in Chapters 3 and 4. It is composed of:

a) a brief summary of existing conditions
b) a summary of impacts with and without the tote road.

5.1 The Existing Condition; a Summary

(i) Tourism Plant

The tourism plant in the Study Area comprises:

a) 4 hotels, with an average occupancy rate of 30-40% in the 1983-84 season.
b) Duley Lake Provincial Park, which operates at capacity during the summer months.
c) 3 fish camps, at Lobstick, Atikonak and Kepimets Lakes.
d) Downhill and nordic ski facilities.

(ii) Current Resident and Non-Resident Travel

Labrador's strongest markets at present are in the Maritimes, Ontario and the USA. Data for air visitors show that approximately 50% of people travelling to Labrador come for business purposes; 20% come to fish; 2% to sightsee and 26% to visit friends and family.

It is estimated that 5900 trips per year are made by Labradorians within Labrador.

The province ranks 2nd and 3rd respectively in ownership of truck campers and travel trailers by household in Canada.

There are approximately 17-20000 tourist related trips in Labrador between June and September. Less than 50% of these would be made to the Study Area.

(iii) Land and Resource Use

Cabins

In Labrador West and Churchill Falls, there is a cabin for every four households. Demand for cabins has been great along the Ross Bay Junction Road, since its completion. Currently, there is interest being expressed about the Poisson River area, in anticipation of tote road construction.

Fishing

The rivers and lakes in the Study Area abound in ouananiche, lake and brook trout, northern pike and whitefish. There is considerable potential for expansion of fish camp activity in the region. However, dependence of fish camps on road access is questionable. Except for Lobstick Lodge, fishermen now arrive at fish camps by chartered aircraft.

Trapping

The total furbearer harvest in Labrador in 1983-84 was approximately $245,000. Approximately $64,675 of this amount came from the Study Area. Trapping takes place from all access roads, including the Twin Falls, Esker and Ross Bay Junction Roads. The martin accounts for 69% of the fur-bearing harvest by value and the red fox for 20%.

The number of trappers in Labrador City/Wabush is 66 and in Churchill Falls 32. Trapping is a traditional form of recreation and is not carried out for economic benefits primarily. In addition, there are about 20 Innu families who

trap in the Study Area. There is little if any trapping in the Study Area 'triangle', except for adjacent to the Esker Road.

Caribou

There are three companies in the Study Area licensed to pursue the commercial sport hunt, in addition to five companies in the Happy Valley/Goose Bay area. There is much optimism expressed on the future of such activity but it is not seen as road-related, being primarily a fly/camp operation.

Other

The Smallwood Reservoir is a very significant waterfowl habitat. While it has a low density population, it covers an extremely large area. It therefore has high interest to naturalists. The region is part of the northern range of several amphibians, which also is a significant feature for naturalists.

5.2 Impact Assessment - Major Findings and Recommendations

The major findings of the impact assessment are summarized below, under the following headings:

- without the tote road
- during construction of the tote road
- two years post construction
- ten years post construction

The impacts discussed in this and previous sections are summarized in tabular form at the end of this chapter.

5.2.1 Without the Tote Road

Many aspects of tourism and the subsistence use of natural resources in the study area will remain much as they are today. With no large scale growth in

resident population and no increase in accessibility to the area any future tourism developments will be those that are unrelated to road access. With an aggressive marketing approach and the expansion of facilities/infrastructure there is the potential for the area to capture an increasing share of some specialty markets eg. sports fishing, caribou hunting, wilderness travel and skiing. it is unlikely that the increase in the number of tourists would cause any undue pressure on any of the area's natural resources.

5.2.2 During Construction of the Tote Road

The actual construction period of the tote road is expected to have little or no impact on tourism or local hunters, trappers or fishermen. Any impacts on the Innu during this period are discussed in the Native Resource Use Component.

5.2.3 Two Years Post Construction

(i) Tourism-Related Impacts

The overall tourist-related findings of this impact analysis is that the proposed tote road, seasonal or all-weather, will in and of itself, have minimal impact on the tourism industry of Labrador as a whole, or of the Study Area. What will be required to augment the Labrador tourist industry to any significant degree will be a joint effort by government and industry to launch an aggressive and innovative marketing and promotional strategy. At the same time, major investment will be required to upgrade and expand Labrador's tourism plant.

As a seasonal road only, the tote road at best will facilitate regional travel between Churchill Falls and Labrador City-Wabush; and Happy Valley/Goose Bay. It will also facilitate residents going out-of-province on vacation.

As an all-weather road, the impact would be greater in that regional travel and travel out-of-province could occur year round. Resident trips on an all-weather tote road scenario have been projected between 12000 - 16000 trips

annually. This projection assumes the Baie Comeau link exists.

It is not expected that the tote road, either in the short-term (two years after construction) or the long-term (ten years after construction) would, by itself, have much impact on the non-resident auto market. Estimates of the non-resident auto market have been set at 8000 incremental trips annually.

The long distances involved and the cost in driving to Labrador, combined with the lack of any major developed attractions apart from the wilderness, or an aggressive marketing program, are the basis for this estimate.

Existing fishing camps would not be negatively impacted by construction of the tote road as a seasonal or all-weather road. Existing camps fall outside of the Study Area and do not require road networks to deliver their clients. Chartered aircraft out of Goose Bay or Wabush provide the required transportation. The exception is Lobstick Lodge, located on the alternate route, which would be impacted if the proposed route is constructed. It is probable that the lodge would lose all drive through traffic and possibly some resident traffic also. However its sports fishing market would remain largely unaffected and could increase, given an aggressive marketing effort.

Should the proposed route be selected, the prime locations for development of a fish camp or other tourism facility are at the head waters of the Poisson River and Lake Ossokmanuan. These additions would be important increments to the region's tourism plant and would significantly augment the region's tourist-related income.

It is estimated that each non-resident sportsman spends $3,000 per sports vacation (average of one week). These potential development sites however, are in the northern range of some of the Lac Joseph Caribou Herd and concern has been raised that such proximity could lead to illegal hunting and/or destruction of their habitat.

It is recommended that with or without selection of the proposed route, a comprehensive management program for the Lac Joseph Caribou Herd be implemented

by the Wildlife Division.

(ii) Recreational-Related Impacts

Construction of the tote road along either of the two routes may lead to considerably more cabins in the Study Area. Cabins presently number around 1,000 (approximately one for every four households) in the Study Area vicinity and requests for permits to build additional units are awaiting government approval. However, with a declining population base, demand for cabins may slacken off in the near future.

The only negative impact associated with increased cabin development would be relative to the Lac Joseph Caribou Herd should development be permitted near their range. These impacts could possibly be minimized through implementation of a sound management program by wildlife officials and the enforcement of a crown land management plan to control cottage development.

Construction of the tote road could, to some degree, detract from the scenery and pleasure which individuals derive from that scenery. To minimize such disruptions, it is recommended that specified mitigative measures, as set out in Chapter 6 of this report, be implemented.

It is not expected that the tote road along either route would have negative impacts on the trapping activities of Labrador residents. Presently little trapping occurs in the Study Area, most occurring off the Esker, Ross Bay Junction and Twin Falls Roads. Either route would open up more areas to trapping and thereby increase the harvest from the Study Area. Stocks should not be adversely impacted. Due to the increase in accessibility and the increase in the level of resident travel in particular, concern has been expressed about pressure on the waterfowl resource in the Study Area.

(iii) Subsistence - Related Impacts

The Innu living along the Labrador-Quebec border and in Sheshatshui have a lifestyle which is traditionally tied to the natural resources of the land.

The Sheshatshui Innu, in efforts to free their people from the problems associated with their accepting western civilization, have instituted a program of returning to the traditional ways of living off the land. Up to ten (10) Innu families have lived in the Study Area near Lobstick. There, they are pursuing plans to develop the Michekemau Whitefish Fishery. In addition to commercial fishing, the Innu hunt and trap small game as well as live off the caribou.

It is estimated that about half of the Innu population would perceive any construction in the Study Area as a negative impact on their lifestyle as well as on the natural resources of the area. An all-weather road, which ultimately would become part of the Trans-Labrador Highway would bring the most severe impact, Innu Leaders contend, as it would likely mean the opening of Labrador's interior to development. Should such occur, the Innu may press for land claims or negotiation. There are, however, many Innu who see the construction of the road as a positive development primarily because of development opportunities associated with it in which the Innu could participate.

It is recommended that the government include Innu leadership in the development of all management plans for the Study Area, should either route for the tote road proceed.

5.2.4 Ten Years Post Construction

With the establishment of a circuit route through Labrador there is the potential for an increase in rubber-tire traffic through the Study Area. Resident travel between Labrador East and Happy Valley/Goose Bay will increase substantially. Depending on marketing approaches adopted and infrastructure put in place, Labrador could see a significant increase in non-resident travel. Much of this increase in tourism would not be directly road related, eg. fishing, hunting, and wilderness travel.

The increase in accessibility and the level of resident travel could result in pressure on several natural resources. In particular the waterfowl resource

and the Lac Joseph Caribou herd could come under pressure.

The main indicators of change associated with the tote road are listed in summary form below. The magnitude of change, as perceived by local residents and as predicted by the study team, is described.

Summary of Impacts

Factor 1: Number of Resident Tourists

Perceived Viewpoint

a) **During Construction:** No impact.

b) **Two Years Post Construction:** Large increase in resident travel (as shown in resident survey). Residents will use tote road to leave Labrador on vacation.

If proposed route is chosen, Lobstick Lodge will go out of business as it will lose all through traffic.

c) **Ten Years Post Construction:** Trans Labrador Highway will greatly increase travel between Labrador West and East. It will open up many development opportunities related to tourism. Many more residents from Labrador West will exit Labrador via HVGB and CN Marine.

Professional Viewpoint

a) **During Construction:** No impact.
b) **Two Years Post Construction:** Initial surge in resident travel will slacken off as people realize time and cost involved in tote road travel, cf Burgeo Road.

Re. Lobstick Lodge, road travel is only a small percentage of the business. If proposed route is chosen, there will still be potential to increase its share of the sport fishing market, with good advertising, or, could relocate to the proposed route.

c) **Ten Years Post Construction:** Good quality road between Labrador West and East will facilitate regional integration and associated travel. Potential for tourism - related developments, eg park, motel, gas station, restaurant, craft outlet.

Factor Two: Number of Non-Resident Tourists

Perceived Viewpoint

a) **During Construction:** No Impact.

b) **Two Years Post Construction:** Residents see tote road as leading to a significant increase in non-resident tourism.

b) **Ten Years Post Construction:** The Trans-Labrador Highway will open Labrador to a flood of tourists and lead to many new tourism-related developments. There is great potential for circuit travel.

Professional Viewpoint

a) **During Construction:** No impact.

b) **Two Years Post Construction:** Road of and by itself will not lead to increase in non-resident tourism. Increases will be due to new, aggressive marketing and will occur in markets unrelated to road access, ie, sports fishing, hunting and wilderness travel.

c) **Ten Years Post Construction:** Road will offer potential for circuit travel and general increase in rubber tire traffic. It will increase access to sports fishing and hunting; make it less expensive and therefore increase the number participating. The main increase in tourism will still be related to natural resource use. Aggressive marketing and development of infrastructure could lead to significant increase in general touring. Substantial number of people now travelling to Manic 5 dam can be expected to continue on into Labrador.

Factor 3: Number of Resource Users

Perceived Viewpoint

a) **During Construction:** No impact.

b) **Two Years Post Construction:** Road will provide increased access to resources for residents (positive). Members of the Innu community have concerns about a large increase in the number of users.

c) **Ten Years Post Construction:** Same as Two Years Post Construction. Increased concerns by members of the Innu community.

Professional Viewpoint

a) **During Construction:** No impact.

b) **Two Years Post Construction:** Alternate route - very little change in number of resource users; proposed route - will open up new areas to

resource users, possible increase in number of users from Labrador west, who would have near and easy access via the proposed route.

c) **Ten Years Post Construction:** Increase in number of resident and non-resident users. Unlikely to be a problem concerning competition for resources between residents and non-residents due to abundance of resources, (except for the Lac Joseph caribou herd).

Factor 4: Change in Quality/Quantity of Resources

Perceived Viewpoint

a) **During Construction:** Concern about the aesthetic value of the landscape being lowered.

b) **Two Years Post Construction:** Members of the Innu community perceive the road will vastly increase the number of resource users, who will compete for (and reduce the quality/quantity of) their traditional resources.

c) **Ten Years Post Construction:** Same concerns as two years post construction.

Professional Viewpoint

a) **During Construction:** Design and construction standards can be observed which will lessen aesthetic impact on the landscape. Potential for negative impact is vastly greater for the proposed route (more virgin territory).

b) **Two Years Post Construction:** For alternate route, unlikely to be a significant change in the quality of resources. For proposed route, there is the increased potential for illegal hunting of the Lac Joseph herd. Concerns about major decrease in the quality/quantity of resources through increased usage appear to be unfounded due to; low subsistence resource usage of local (white) residents, large resource/low population base and the great travel distances involved for non-residents (except for localized hunt/fish camp operations).

c) **Ten Years Post Construction:** Same as for two years post construction. Potential for larger number of users due to improved access, however, there is no basis for concern, due to the vastness of the resource base.

Factor 5: Caribou

Perceived and Professional Viewpoints

There is potential for negative impact on the Lac Joseph herd, particularly from the proposed route.

No impact expected on the George River herd, as it is increasing faster than any forseeable future pressure and is not directly accessible from the tote road.

Factor 6: Sportsfish

Perceived and Professional Viewpoints

An abundant resource that can withstand any normal increase in use attributable to the tote road.

Factor 7: Waterfowl

Perceived Viewpoint

No impact.

Professional Viewpoint

There is potential in the long term (ten years post construction and beyond) for over hunting of resource with increased accessibility.

Factor 8: Cabins

Perceived Viewpoint

Cabin owners along the Esker road perceive a loss of access to their properties if the proposed route is developed.
Increased potential for uncontrolled cabin development.

Professional Viewpoint

Loss of access for Esker Road cabin owners not expected as CFL Co. will carry out summer maintenance on the road as far as the Gabbro structure. In winter, cabin owners could use ski-doo or pay CFL Co. to clear the road if necessary.

Will likely be new applications for cabin development from Labrador West residents. However, this will be carefully controlled by the development control policies and regulations of the Department of Forest Resources and Lands, which are applied throughout the province for cottage subdivisions and remote cottages.

Factor 9: Forestry

Perceived Viewpoint

No impact.

Professional Viewpoint

There will be selective wood harvesting along either route. Impact will be insignificant due to the distances involved and the accessible wood resource in close proximity to Labrador City/Wabush.

Factor 10: Furbearers

Perceived and Professional Viewpoints

No impact anticipated.

Chapter 6: Strategies for Management of Impacts

6.1 Introduction

The aim of this section is to outline strategies for the management of impacts resulting from construction of the tote road along either the proposed or alternate route. This management of change involves both the enhancement of positive impacts and the mitigation of negative ones. As an overview, it may be said that, in terms of this component study, the positive impacts of the tote road are those which relate to potential increases in tourism, while any negative impacts may result from increased pressure on natural resources. This impact analysis, however, has not discovered any major negative impact associated with tote road construction along either the proposed or alternate routes.

6.6 Impacts on Resident and Non-Resident Tourism.

1) The provincial government, rural development and tourist associations should adopt aggressive marketing strategies to attract a larger percentage of tourists to the Study Area. Tourism operators should avail of public and private funding to upgrade and expand existing facilities.

2) A traffic study should be undertaken on the tote road within two years of its opening. This type of study would determine the number, origin, destination and trip purpose of resident and non-resident tourists and assist in developing marketing approaches directed at specific target markets. In addition, it would provide a sorely needed information base with regard to the province's tourism statistics. This type of study may show the need for upgrading the road and keeping it open on a year-round basis.

6.2.2 Impacts on the use of Natural Resources

(a) Caribou

1) Regardless of which route is chosen, a comprehensive management plan

for the Lac Joseph caribou herd should be implemented by the Wildlife Division of the Department of Culture, Recreation and Youth. This would involve careful monitoring of the herd and increased surveillance, especially should the proposed route be selected. It is probable, that if the Lac Joseph Wilderness Area is established, that the preservation of the caribou herd would be enhanced.

2) The non-resident hunt of the George River Caribou Herd should be continued and expanded. The big game hunting market is growing and Labrador could capture an increasing share of this market.

(b) Waterfowl

1) In order to determine the increase in hunting associated with the opening of the tote road, the Canadian Wildlife Service should implement a waterfowl monitoring program in the study area. By undertaking this type of monitoring, the CWS would be able to determine whether restrictions on hunting of waterfowl species should be put in place.

(c) Wood

1) Any wood displaced through construction of the tote road should be salvaged and sold to local area residents for wood fuel.

(d) Cabins

1) A crown land management plan should be developed and implemented to control future cabin development in the study area. This should be carried out by the Lands Branch, Department of Forest Resources and Lands. In order to control other developments related to the road, it is recommended that the tote road be designated a Protected Road under the Protected Road Zoning Regulations of the Department of Municipal Affairs, Development Control Division.

6.3 Impacts on the Innu

1) In order to minimize negative impacts perceived by the Innu, it is recommended that government include Innu leadership in any development plans

for the Study Area, should either route for the tote road proceed.

6.4 Visual Impacts

1) Where possible, borrow pits should be screened from road views by trees or topographic features. A minimum setback of 100 meters from the road should be respected.

2) The right of way for the road should be cut so that the vegetation forms an irregular as opposed to a straight line.

3) There should be site rehabilitation at the work camps after completion of construction work, to reduce viewer awareness to change.

4) The road should be designed so that caribou can see over it, otherwise they may perceive it as a barrier and not cross the road.

5) Road intersections should receive a high level of rehabilitation for disturbed land, as these areas tend to exert the most noticeable change to a landscape setting by virtue of the spatial requirements.

6) Interference with long views should be avoided when extracting borrow material, especially in areas with high recreation potential, eg, the Lake Ossokmanuan area.

APPENDICES

Appendix A, The Scoping Study and Appendix B, Relevant Factors, were written up as completed and as such requirements for future research (subsequently undertaken in the study) are written in the future tense.

APPENDIX A: THE SCOPING STUDY

A.1 Study Objectives

The scoping exercise employed in the Tourism/Recreation and Socio-economic components of the Tote Road EIS had three primary objectives:

. To identify and isolate key concerns as expressed by residents of the area;
. To identify similarities and differences in concerns or perceived impacts between different areas and groups; and
. To initiate public involvement in the impact assessment process.

A.2 Methodology

The study involved face-to-face interviews with 61 key informants in Labrador East, West and Central. This included the communities of Labrador City, Wabush, Churchill Falls, Happy Valley Goose Bay, North West River, Sheshatshui and Mud Lake.

The number of interviews by area are listed below:
. Labrador West 22
. Churchill Falls 9
. Labrador East 30

In selecting the group of people to be interviewed, the Study Team paid careful attention to choosing individuals who would be knowledgeable about the area, represent a good cross-section of the community and be able to contribute significantly to a discussion of impacts. Those selected represent a diverse group of organizations, affiliations and community groups. In addition we have interviewed 11 people who attended the public information session held in the area and who were recommended by other key informants.

Fourteen people were contacted specifically because of their involvement in tourism and recreation. However, the majority of people contacted had comments of interest to the Tourism/Recreation/Subsistence use of resources, eg, by expressing optimism about the development potential of tourism or concerns about the impact the tote road could have on the traditional use of resources. The results of the entire scoping exercise is therefore included in this section.

Individuals were contacted first by a letter explaining the purpose of the study and the contribution they might make to it. A follow-up phone call from a member of the Study Team was used to schedule the interview. The bulk of the interview work was done in March, 1985. Due to logistical problems caused by climate and geography, the Churchill Falls interviews were done in April and the additional eleven interviews resulting from the public information sessions were carried out in May.

The interviewers selected for this scoping exercise were chosen on the basis of:
. interviewing experience

. familiarity with the are .

They were thoroughly briefed prior to going into the field and provided with a copy of instructions (see end of section).

Of primary importance was the need to avoid bias in predisposing the individual to particular issues. The interviewer was instructed not to prompt the individual during the interview by suggesting possible impacts the road might have. The only prompting permitted was to focus discussion as to:

. the level of impact ie, self/family,business/organization, community or region, and
. the significance of impact.

This attempt to minimize bias is seen as of critical importance in that the scoping exercise was to reflect the true concerns of area residents and not those the interviewer thought might be important. (Impacts not necessarily elicited by the scoping exercise but felt worthy of consideration by the Study Team have been identified in drawing up the Relevancy Tree, Appendix B).

As a general comment on the response to the survey, it was evident that almost everyone interviewed was most interested in talking about the project and welcomed the opportunity to voice their concerns and opinions. There was, however, reluctance by some members of the Innu community to participate. This was understood to be for political reasons rather than any disinterest in the project.

A.3 Tabulation of Results

This section provides the results of the Scoping Interviews.

It is based on 22 interviews in Labrador West, 30 in Labrador East and 9 in Churchill Falls.

Although the results are presented in tabular form no tests of statistical analysis have been performed on them and they were not intended for that. The tabular presentation was seen as the best method of categorization of a vast array of comments elicited from the interviews and enabled the study team to determine, in a general way, what the main issues or concerns were.

A.3.1 Route Alternatives

A summary of comments about route alternatives is given in Table 1.

Table 1. Route Alternatives

Issues/Concerns	West	East	Central
Prefer direct route	3	6	1
Alternative route	1	8	8
Why only seasonal road?	1	7	
Little demand and no need for the road.		1	
Better to upgrade the Churchill Falls to Happy Valley/Goose Bay Road			2

Several respondents had comments about either the Preferred or Alternative routes. Three from Labrador East and 6 from Labrador West said they preferred the direct route, principally because it would mean less driving time and maintenance costs. In addition, two people in Labrador West indicated that they would prefer the direct route unless it meant delays in the project,in which case they would prefer the alternative.

One organization in Labrador West supported the alternative route - in support of the Lobstick Lodge manager. As to the need for a road, one respondent felt there is little demand and no need for it; whereas others questioned why only a seasonal road was proposed and felt that an all weather road was required.

The links between Churchill Falls and Labrador East appear to be stronger than to the west. This is indicated by the two people commenting that it would be preferable to upgrade the road to Happy Valley/Goose Bay than build the tote road and by comments made by other contacts. One person said he preferred the alternate route because it would be completed much quicker than the proposed route.

Seventeen comments were made in support of the alternate route. They indicated concerns about business, the Innu, cabin owners and the people of Schefferville. There was also concern about environmental impact (see Environmental Concerns section). The point was also made that the Esker Road is of good quality and that the cost of upgrading that portion of the road should not be included in estimates of the cost of the project as they felt it was a Class A road at present.

Several cabin owners from Churchill Falls were interviewed and one of these was very concerned as to how he would get to his cabin in winter if the preferred route was chosen. His cabin is located on the Esker Road which is currently maintained year round by CFLCo. He raised the question of compensation for loss of use of his cabin and wondered if the government would pay him $20,000 to relocate it on the preferred route.

Comments from our interviewer in Churchill Falls supported the fact

that Churchill Falls is much more closely linked to Labrador East than Labrador West. Although CFLCo. brings in most of its freight by the Esker Road, the bulk of personal travel is via CP Air or by road to Goose Bay and out on the CN Ferry. The high standard of living afforded by company salaries means that many people can afford to fly in and out and are not dependent on road transport.

A.3.2 Impacts upon Person/Family

Several respondents felt that the road would have direct impact upon themselves and their families (see Table 2.).

Table 2. Impacts Upon Person/Family

Issues/Concerns	West	East	Central
Leisure use	8	5	1
Employment	7	5	
No impact	2		2
Services improvement	4		1
Accidents		1	

The point was made that the relatively high salaries in Churchill Falls mean that people would not be as dependent on road transportation as those in other communities. However one respondent felt that the road would give him an alternative route for going on holidays via Labrador West rather than Labrador East.

Fourteen respondents indicated that it would affect leisure activities such as camping, fishing, and general leisure time travel.

Twelve respondents referred to employment benefits from the road. One person commented that it would result in a better feeling of stability (for example: because of increased job opportunity).

Four respondents in Labrador West and one in Churchill Falls felt the road would improve services in the area, for example, by providing somewhere else to shop and possibly a reduction in air fares.

An increase in road accidents was a negative impact expected by one respondent.

A.3.3 Regional Integration

Issues related to integration of Labrador and the Province were offered by a cross-section of respondents.

These are placed into categories in Table 3.

Table 3. Regional Integration

Issues/Concerns	West	East	Central
Better/cheaper access within Labrador and the Province	16	3	1
Stronger links within Labrador	7	7	2
Opportunity for exchange visits	12	6	2
De-isolation	9	4	2
No impact if only a summer road		1	1

The issue of having more convenient and cheaper access was emphasized mostly in Labrador West, where people place high emphasis on travelling to Labrador East and more particularly to Newfoundland, from where a large percentage of the population originated.

There was strong representation from both Labrador West and East respondents on promoting stronger links within Labrador and eliminating the "sub regional" phenomenon. One respondent stated that the road would promote broader awareness and understanding among cultural and ethnic groups.

Another well articulated impact expected from the tote road was the opportunities for exchange visits within Labrador which are currently beyond the financial reach of many organizations. Groups expected to take advantage of these opportunities include women's groups, sports teams, service clubs and students. In Churchill Falls, CFLCo. presently spends a lot of time and money flying sports teams in and out of the community. It was felt that the opening of a road link to Labrador West would be a considerable saving to them in this respect.

De-isolation was also expressed as a positive result of the road. Some felt further that people wouldn't need to use the facility to feel less isolated. In Labrador West , eight respondents felt that it would be important in areas such as depression and alcohol consumption. One person interviewed felt isolation not to be a major issue. Several others stated that the feeling of isolation would only be lessened if the road was maintained on a year round basis.

One respondent in Labrador West said it wouldn't be worth his while to use the road to exit via Goose Bay because IOCC. presently gives its employees a $4000/year travel bonus so they can afford to fly in and out. Should this company bonus be dropped he thought the road would be an advantage.

A.3.4 Community-Wide Impacts

Issues and concerns expressed in all sections of this report have implications for the community at large. This section deals exclusively with community matters which do not fit into other categories. Table 4 outlines

five areas of impact.

Table 4. Community Impacts

Issues/Concerns	West	East	Central
More family visiting	4	6	2
Strengthen tax base	1		
Negative social impact	1	3	1
No negative impact		2	
Important to have public hearings		2	
Change in services			3
Change in social status			1

Comments about negative impact came from either general apprehension or specific concerns such as "the community will lose its close-unit feeling."

Two people in Labrador East felt that there would not be any negative social impact as the area had already dealt with major industrial and social change.

Two others felt it important to have public hearings in their community so that the project could be exposed to a much wider public scrutiny.

The most frequently cited impact was the effect that the road would have on increasing the possibility of visiting friends and family. Two cabin owners from Churchill Falls felt that if the alternative route was chosen they would get friends visiting them at their cabins along the Esker Road. This was seen as a positive impact.

Two respondents from Churchill Falls felt that the road could stimulate more consumer and social services than currently exist. A third was concerned about changes (i.e. lessening) in air services to the town.

One respondent from Churchill Falls felt that the project could begin a change in the town's status as a company town, which could result in its becoming a municipality.

A.3.5 Development Opportunities

Most respondents had definite ideas about what the road could do to the development of their community/region. Their comments are summarized in Table 5.

Table 5. Development Opportunities

Issues/Concerns	West	East	Central
Quebec link- more important than Tote Road.	6	6	1
Tourism opportunities	37	24	3
Resource Development	14	9	
Important to opening up the area		4	
Not convinced on importance.		12	2
Could reduce employment		1	

Thirteen people emphasized that they felt the tote road would have minimal impact compared with the link to Quebec. Many of their subsequent comments were based on this contention.

All respondents mentioned tourism as an area of huge potential which the road could help develop. Two people stated that little potential would be realized from a summer road. Expected areas of opportunity included skiing, wilderness/adventure tours and highway service uses. Sales of locally produced crafts would increase and the road would mean cheaper wholesaling of craft products.

One felt that the resident market would be high initially but would not result in much tourism trade in the long term. Another felt that smart marketing could develop the non-resident market in the long term.

It was felt that the road could provide access to or make feasible resource development activities such as mineral exploration, hydro development and small scale lumbering.

Four respondents felt that it would be important in opening up the area in general. Eleven others (in Labrador East) and two in Churchill Falls had doubts about the tote road, especially as long as it remained a summer road and until the Churchill Falls Road is upgraded to standard.

One respondent in Labrador East felt that the road could reduce employment opportunities, for example, by eliminating jobs in warehousing and shipping.

A.3.6 Business Operation

There was a good representation of opinion on how the road could affect the operation of businesses and the creation of new or expanded business opportunities. Table 6 provides a summary of these comments.

Table 6. Effects on Business

Issues/Concerns	West	East	Central
More attractive for employees	1	1	
More attractive for new business	1	1	1
Commodity flows	20	11	2
Use all- weather road only		5	
Make business more competitive	3	6	
Supply of goods to road construction	1		
New trucking business		1	
Tourism would give business a boost		2	
No need to carry large inventories		1	
Operation of utility			4

One respondent in both Labrador East and West felt that the road would increase the chances of holding on to employees for longer than present.

Twenty-six comments were made concerning the storage and distribution of goods and services. For example, there were six comments in Labrador West to the effect that the competitive position of Newfoundland companies to supply goods and services would be improved. People in both Labrador East and West saw their areas acting as a storage and distribution center for the other. Two people in Labrador East saw the future of transportation subsidies (principally to CN Marine) as important. Labrador East respondents saw being able to receive cheaper goods (mainly building supplies and foodstuffs) as an effect. Four respondents in Labrador West saw Happy Valley Goose Bay being supplied with fresh produce through their area in the Fall with a supply of fresh seafood travelling in the other direction.

Five respondents in Labrador East saw their operation benefitting only if it was an all-weather road.

Nine respondents felt that the road would make business more competitive, eg: by supplying less expensive goods and providing for more interchange between entrepreneurs.

In addition there were comments as to the new business that might be stimulated by the tote road. These include trucking, warehousing, gas stations and tourist accommodation. One respondent in Goose Bay said that a Trans-Labrador road link would reduce his need to carry a large inventory of stock as it would mean more reliable delivery of goods.

Representatives of CFLCo. felt that the project could assist them in servicing of transmission lines and their Wabush Terminal Station. Concerns were expressed about the Ossokmanuan crossing and the need to increase security (proposed route). If the road were open year round the company might relocate its siding to Ross Bay Junction. Another concern revolved around the impact of increased traffic on the company's structure along the alternative route,

eg. at Gabbro.

A.3.7 Innu Cultural Concerns

Concerns of the Innu people are summarized in Table 7.

Table 7. Innu Cultural Concerns

Issues/Concerns	West	East	Central
Land claims should be settled prior to development	1	1	
Concerned about other developments which the road could cause*		2	
Could restrict lifestyle (eg, tighter wildlife regs.) & heighten racial tensions		3	
Increased exposure to white culture		3	
Increased social problems		1	
Elders, particularly, unable to adapt to change		1	
Imperative to hold public meetings		3	

*specific concerns were not indicated

A high level of largely negative concern was expressed about the impact the project would have on the Innu people. One respondent saw it in part as providing business opportunities, particularly for a commercial fishery at Lobstick Lake (alternate route). However, there were a variety of concerns expressed about erosion of the Innu culture which are listed in the Table above.

A.3.8 Environment/Resource Management

Opinions about the environmental consequences of the project were all negative in nature except two, where the road was seen as an access point to new trapping areas. One respondent from Labrador East felt that the tote road could provide residents of Labrador East with much easier and cheaper access to caribou than they presently have (George River Herd). This could lead to both a subsistence hunt and a commercial hunt in the neighborhood of the tote road.

Table 8 summarizes the concerns..

Table 8. Environmental Concerns

Concerns	West	East	Central
General	1	6	2
Should not prejudice Wilderness Area plans (eg, Lac St. Joseph)		2	
Illegal hunting/fishing increase		1	1
Need rationalized policies for long-term resource utilization prior to building road		1	
More opportunities for hunting/fishing	1	1	1
Parks and wilderness areas should be set aside		1	1

Nine general concerns were expressed by people who were generally worried about the environment, without mentioning anything specific. Comments ranged from damage to the environment due to construction, and to opening up of a wilderness area. Several respondents felt that the alternate route would be better in this regard as it already served as a transportation corridor and increased environmental damage would be minimal. The need for long term land and resource use planning was brought up with regard to the road and this included the need to control illegal hunting and fishing and the need to set aside areas for parks and wilderness areas in order to best preserve the natural environment.

A.3.9 Tote Road - Long Term Development Strategy

Four respondents saw the road as the first step towards major change in Labrador (and that this EIS should be treating it as such). A third respondent felt strongly that the tote road should not be considered in isolation from the broader picture of an expanded all-weather corridor and several stated that the link to Baie Comeau was more important. Respondents in both Labrador West and East predicted that there will be a great demand to upgrade the road to all-weather standard.

A.3.10 Ranking of Impacts

Interviewers were asked to rate issues and concerns, in consultation with respondents, as being of High, Medium or Low importance. As such, there is difficulty in comparing responses between individuals. However, this ranking does give the study team some indication of what the most important impacts are and the direction which future research should take.

Their value in terms of any quantitative analysis is therefore limited. The results may however have some value in giving an appreciation of the intensity with which respondents put forward their feelings.

With the above in mind, there are some issues and concerns which clearly stand out in importance in Table 9.

Table 9.- Levels of Concern

Issue/Concern	High	Medium	Low
1. Route Alternatives			
. Prefer direct route	2	8	
. Prefer Alternate route	8	7	
. Why only a seasonal road	8		
. No need for a road	1		
. Upgrade Churchill Falls/ to HVGB Road		2	
2. Impacts on Person/Family			
. Leisure use	6	7	1
. Employment	6	4	
. No impact		2	2
. Services improvement	2	3	1
. Accidents		1	
3. Regional Integration			
. Better/cheaper access within Labrador and the Province	10	9	1
. Stronger links within Labrador	7	8	2
. Opportunity for exchange visits	10	10	
. De-isolation	11	4	1
. No benefit if summer road only		2	
4. Community Impacts			
. More family visiting	9	3	
. Strengthen tax base	1		
. Negative social impact	2	2	1
. No negative impact			2
. Important to have public hearings.	2		
. change in services		3	
. change in social status		1	

5. Development Opportunities			
. Quebec link more important than Tote Road	12	1	
. Tourism opportunities	50	8	3
. Resource development	15	7	1
. Important in opening up the area	1	3	
. Not convinced on importance	7	5	3
. Could reduce employment			1
6. Affects on Business			
. More attractive for employees	1		1
. Commodity flows	22	10	1
. Use all- weather road only	5		
. Make business more competitive	4	4	1
. Supply of goods to road Construction	1		
. New business	3		
. Operation of utility		4	
7. Innu Cultural Concerns			
. Land claims should be settled prior to development	2		
. Concerned about other developments which the road could lead to	2		
. Could restrict lifestyle and heighten racial tensions	3		
. Increased exposure to white culture/deterioration of Innu culture	3		
. Could increase social problems	1		
. Elders, particularly unable to adapt to change	1		
. Imperative that public hearing be held	3		
8. Environmental Concerns			
. General concerns	3	5	1
. Should not prejudice wilderness area plans		2	
. Increase in illegal hunting/ fishing		2	
. Need nationalized policies for long term resource	1		
. More opportunities for hunting and fishing	1	2	
. Need to set aside park areas and wilderness areas	1		

All Innu-cultural concerns are given a High ranking. Development opportunities, particularly tourism and resource development are clearly high on the priority list. Within the Affect on Business category, issues revolving around commodity flows are very prevalent.

The number of High, Medium or Low concerns raised about the doubtful value of the seasonal tote road in isolation is significant. Some of these show up in Table 9 under 1.- " Why Only a Seasonal Road "; 5.- " Quebec Link More Important Than Tote Road" and 6.- "Use All-Weather Road Only". Others are contained within categories such as 6.- Commodity Flows.

The number of High or Medium concerns within 3.- Regional Integration is also significant, indicating strong priorities in that area.

A.4 Summary of Scoping Study Findings

Practically everyone interviewed during the scoping study mentioned the tourism development which they feel would ensue from the opening of the tote road. In many cases, this expected increase in tourism and recreation was linked not only to the opening of the tote road but with an upgraded Trans Labrador Highway allowing the easy flow of vehicular traffic between Eastern and Western Labrador. This expected boom is also expressed by a recent article[1] in Atlantic Insight about the potential impact of the Trans-Labrador Highway, including a link to Baie Comeau.

Those interviewed saw the road being of benefit to travellers by allowing residents of Labrador West to drive across Labrador to Happy Valley Goose Bay and take the CN Ferry to Newfoundland. This is expected to represent a considerable cost and time saving to individuals and possibly increase the frequency with which they would make the trip.

For residents of Churchill Falls and Labrador East, the road would enable them to drive to Labrador City and Wabush and take advantage of various retail services.

This travel across Labrador stimulated by the opening of a road link would be given added stimulus with the discontinuation of the passenger train service at present operated by the Q.N.S.L.R. Should that come into effect, the only way out of Labrador, apart from air travel, would be via the tote road.[2] The respondent who informed us of Q.N.S.L.R.'s plans to discontinue this service also said that the train was inconvenient in that you could spend

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[1]Jackson, L. May 1985. "Old Fears Paved Over as Trans-Labrador Road Advances" Atlantic Insight

[2]This does not take into consideration the fact that the link from Fermont to Baie Comeau is likely to be completed in the very near future and will affect this expected pattern of trans Labrador travel.

two or three days at either end with your car in a line up.

The term "Freedom Road" was offered by one respondent who said that it would give Labradorians the freedom to engage in private enterprise. This included taking advantage of the tourism trade in many respects, eg, motel and hotel accommodation, a caribou sport hunt, gas stations, fishing camps and craft development. This shopping list of development opportunities was quoted by many of those interviewed who predicted a boom in tourism with the opening of the Tote Road.

Interviewees felt that residents of both Labrador East and West would visit and holiday in each others' region. Both they and non-resident tourists would take advantage of recreational resources in the interior. Several people mentioned that growth in Labrador had been stunted by a poor transportation network and they saw a Trans Labrador Highway as vital to fostering economic development in the region and increasing the viability of one industry towns.

In terms of non-resident tourism it was felt that package tours could be offered which would include fishing, hunting, hiking and white water canoeing, although in many cases these recreational opportunities are not directly related to the opening of the tote road. Both resident and non-resident would stimulate business for outfitters, guides and camp operators, among others. A representative of the Labrador Craft Producers Association stated that an increase in traffic into the area would boost sales in the craft industry and make it cheaper to market products in Labrador via a road link. They were going to institute a training program for local people to supply handicrafts to meet the increased demand.

Although there were a wealth of positive comments about the effect of the tote road on tourism some negative comments were also received. One person stated a high concern for depletion of the fish resource in the vicinity of the road and said there would have to be stiffer regulations to avoid this. The owner of the Lobstick Lodge was also worried about loss of business if the preferred route went ahead and wondered who would compensate him for this.

Several cabin owners on the Esker Road were also concerned about winter access to their cabins if the proposed route were constructed. Many concerns were expressed about the increased recreational and subsistence use of resources resulting from the tote road project, and particularly in the long term (ie, an all weather road with a link to Quebec).

Several people were more realistic than others in talking about tourism potential. They felt that this potential would not be realised unless there was an aggressive advertising campaign to try an encourage non-resident tourists to come to Labrador. Another respondent felt that a seasonal as opposed to an all-weather road may preclude some of these developments. In any event, development would depend on general economic conditions and the initiatives taken by people outside Labrador.

The Innu people interviewed were particularly concerned about the preservation of resources in the long term. Some wondered whether increased

access to resources would result in more stringent wildlife regulations to the disadvantage of Labradorians.

APPENDIX B: RELEVANT FACTORS

In assessing the potential impact of the tote road on tourism, recreation and subsistence use of resources, several factors are considered relevant. These are dealt with in the section following.

Tourism/Recreation Market

Central to the assessment of potential impacts upon resource uses induced by the tote road is the tourism/recreation market, considering locational factors and area resources. We are therefore in the process of collecting information on both current and potential resident/non-resident markets. Due to the rather sparse information base available, this work will continue into the Research of Impacts phase. The potential for market development depends partly on the region's resources. At the same time, therefore, we are compiling a profile of the resources within the project area, based on information available from resource management agencies and other study components.

To date, we have compiled an interim report for use by our Study Team on the tourism/recreation market, including general trends within the travel industry. We have also completed a telephone survey of wilderness tour operators located on mainland Canada and the U.S.A. We have talked to individuals with the Newfoundland Department of Development and Tourism, the Department of Regional Industrial Expansion and Tourism Canada, as well as representatives of Tourism Departments with other provinces and territories of the country.

The main conclusions of this work include the following:

- For the non-resident market, many potential tourism activities such as the caribou sport hunt and current fish camp operations (except one), the tote road can be expected to have little or no impact.

- The resident market seems to have the most potential for impact related to the tote road, particularly in the near-term. However, there are no figures presented to us to date which would provide any means of projecting the extent of impact.

- With a link to Baie Comeau, there would be obviously increased potential for development of a non-resident 'rubber tire' industry in Labrador. There is little data for comparable situations available to predict the potential for development. As one indicator, there has been a steady decline of rubber tire traffic in the Atlantic region over the last decade, for which data is available.

- A long range, aggressive marketing program would be required to produce any significant non-residential market development.

To supplement the data collected to date, we will be doing the following in Phase 2 of the work:

- further interviews with key senior personnel with: Nfld Dept. of Development and Tourism; Dept. of Regional Industrial Expansion and Labrador East and West Tourism Associations

- interviews with tourism operators: hotel managers; outfitters; craft producers; CN Marine and CP Air.

The purpose of these interviews will be to determine the current level of activity and the potential for growth as seen by these people.

The significance of any projected growth in the market will be related to the individual tourism operator. An influx of 100 extra tourists could be insignificant to one operator but highly significant to another. We will be consulting operators on this question during Phase 2 and making conclusions about significance based on their perceptions. As an overall observation, any increase in tourism activity of 5% or more would be regarded as significant.

Development Strategy

The extent to which the tourism/recreation market will develop will depend largely on the development strategy adopted by the province, of which the tote road is a part. It will include development incentives offered to the entrepreneur, transportation subsidies, the marketing plan adopted for the project area, parks and fish camps permitted in the project area, etc. The tourism industry in areas such as the Yukon and North West Territories for example, have grown over the years as a result of comprehensive, long term development strategies.

The possible role of this factor will be determined through discussions with the tourism associations and the government departments responsible for tourism. The Labrador West Tourism Association is preparing a strategy for tourism development in the area. We will therefore consult closely with that association.

The significance of this factor will be determined by the level of importance attached to it by the responsible public agencies and the increased level of tourism activity which it stands to generate. A long term comprehensive strategy for the area would be highly significant, whereas one which was shorter term and without a well coordinated marketing or development incentives program would be given a significance.

Goods and Services/Employment/Revenue

Once the potential growth in tourism/recreation activity in the Project area attributable to the tote road is determined, we can make approximations on the amount of goods and services, employment and revenue which could result. In order to determine impact, we will describe the current employment, goods and services related to the tourism/recreation industry. The data available is very limited. Further interviews will be held with the public and private sectors with the aim of constructing a brief profile of the industry and its current value to the economy.

Our objective, with the limited budget available, is to determine the current and future levels of resident and non-resident tourism. The instruments to collect this information will be:

- survey of wilderness tour operators (completed)
- interviews with officials of the federal and provincial tourism departments
- interviews with the two tourism associations and tourism operators.

In doing this, we will collect information on the various tourism activities, including:

- food and accommodations
- outfitting/guiding
- skiing
- touring

The question of significance will be determined by the potential effects on the individual business and the local economy as a whole. At the business level, we will rely largely on input from individual operators as to what level of increase they consider significant. The impact of a given increase in existing businesses would depend on, eg, the type, scale and health of each business. The input of individual operators will therefore be valuable in determining significance.

Tourist expenditures related to the tote road are expected to be very low as there will be few places to spend money and, eg, people who travel in campers and other recreational vehicles are largely self-sufficient.

At the community or sub-regional level, significance will be determined by the potential increase in employment and revenue. Any increase would be significant, with 10% or greater and less than 2% being given 'high' and 'low' categories respectively.

Subsistence Food/Fuel

The relevance of this factor stems from the input which the tote road could have on the subsistence harvest of food and fuel by Innu and Settlers within the project area. Potentially, impact could be positive (eg, provide increased access to supplies) or negative (eg, increased potential for caribou poaching).

To investigate this factor, we will, based on available information and data from other study components, describe the current resource harvest, including any shortages currently being experienced. We will also interview current resource users such as outfitters. Also, from available information and interviews with resource managers with the Federal and Provincial Governments, we will describe the resources accessible from the preferred and alternative routes and solicit views on the potential demand for them and any resource management concerns. This latter factor will also be investigated

under Resource Management Priorities.

It is expected, based on information received to date, that the current and potential use of subsistence resources will be described largely in a qualitative way, using the experience and opinions of resource managers with the provincial and federal governments and resource users such as outfitters.

Significance will be determined by whether the increased potential for harvesting resources brought on by the tote road could be positive or negative in the long term (eg, a long-term fuel wood supply vs. increased caribou poaching). Either of these situations would be highly significant.

Land and Resource Use Management

This factor is relevant as the resource management program of public agencies affects the level of permitted use of the areas' resources, eg, for fish camps, wilderness areas, parks, cabins, service stations, hunting, etc. It also affects the long term preservation of resources for use by residents and tourists alike.

The thrust of our research in this area will be to assess the current situation with respect to cabin development, provincial parks, hunting, fishing and woodcutting and predict what the impact of the tote road will be upon them. In all of this investigation, it will be necessary to look at the regulations and controls governing these types of activities and assess whether changes in them will be necessary to mitigate the impacts of the project. This will be achieved through consultation with key resource use regulators.

We will document current management programs related to cabins, hunting, trapping and other uses. We will talk to resource managers responsible for current controls to determine where problems might occur and what can be done about them.

Significance will be determined in two areas:

- whether current/future resource management programs will provide stimulus to the tourism industry, eg, by permitting more fish camps in the project area. Such changes in policies or regulations will be considered highly significant.

- whether any change in current management programs will be required as a result of the project, eg, for additional monitoring of the Lac Joseph caribou herd.

Education - Environmental Conservation

This factor is closely linked with land and resource use management in that part of a management program could be to make the public, both resident and non-resident, more aware of the need for conservation. This would particularly apply to rare or threatened species. Any need for such a program would be considered significant.

Environmental conservation will also be considered by the study team in terms of the design and construction of the tote road, considering particularly its visual impact on the landscape. Any deleterious effect of the road on the landscape will be considered significant, as will any features which could bring about compatibility between the road and its surroundings.

Traditional Way of Life

The study team will consider the impacts of the road on the traditional way of life of both Innu and Settlers. This will be partially assessed under the Subsistence Food/Fuel factor described above. Also included will be the value of the project area resources from aesthetic and cultural points of view. For the Innu, this will be covered by the Anthropologist on the study team conducting research described in the Socio-economic component. We will also be gathering information through interviewing already described on the value of the project area resources to the Settler way of life.

Any permanent alteration of traditional use of resources within the project area will be regarded as significant and resource users will be consulted to determine the extent to which this may occur.

APPENDIX C: LIST OF PEOPLE INTERVIEWED

List of Key Contacts

Department or Company	Name	Position	Location
Federal Department of Transport	Peter Schnobb	Public Relations Officer	Ottawa, Ont.
Federal Department of Transport	Margaret White	Regional Planner	Moncton, N.B.
Quebec Air	Pierre Soucy	Manager	Wabush, Lab.
Eastern Provincial Airways	Roy Rideout	Director of Marketing	Elmsdale, N.S.
Eastern Provincial Airways	Peter Campbell		Elmsdale, N.S.
Labrador Airways	G. E. Patey	President	HVGB
Town of Labrador City	Karl Hiscock	Mayor	Labrador City
Lake Melville Tourism Association	Jim Kelland	President	HVGB
Labrador West Tourism Assoc.	Rick Small	President	Labrador City
Dept. of Rural, Agricultural & Northern Development	Lawr. O'Brien	Director of Development	HVGB
G.P Construction	Joe Pradella	President	Labrador City
Labrador Inn	Dave Scaplin	General Manager	HVGB
M & M Farms	Michael Joseph	President	HVGB
Churchill Falls Inn	Reuben Green	Manager	Churchill Falls
Grand Hermine Lake Trailor Park	Andrew Spracklin		Wabush
Lobstick Lodge	Ray Cole	Owner	Lobstick
Minipi Camps	Jack Cooper	Owner	HVGB

Provincial Parks	Don Hustins	Director	St. John's
Intergovernmental Affairs	Rickie Smith	Analyst	St. John's
Fisheries and Oceans	Marvin Barnes	Biologist	St. John's
Development & Tourism	Mike Clair	Director, Market Research	St. John's
Tourism Canada	K. Knechtel	Director, Tourism Devpt.	Ottawa
NWT Devpt & Tourism	Don Weisbeck	Director	Yellowknife
Nfld Wildlife Division	Todd Kent	Wildlife Officer	Labrador City
Nfld Cult, Rec & Youth	Joe Brazil	Biologist	St. John's
Wildlife Division	Stuart Luttich & Guy St. Martin	Regional Biologist Biologist	HVGB
Nfld Forest Res & Lands	Fred Earle	Mgmt Forester	Corner Brook
Forest Res & Lands	Boyd Kinden	Regional Forester	Wabush
Forest Res & Lands	Carl MacLean	Cr Lands Tech	HVGB
Cult, Rec & Youth	Rick Gulliver	Dir, Wildlife Recs	St. John's
Canadian Wild Ser	Ian Goudie	Regional Biologist	St. John's
Nichols Applied Management	Peter Nichols	President	Calgary
DRIE	Marlene Macke	Tourism Officer	St. John's
Devpt & Tourism	Len Riche	Specialist, Hunting & Fishing	Corner Brook
Gander Aviation	Bill Bennett	President	Gander
Sir Wilfred Grenfell Hotel	Paul Dicks	Manager	Wabush
Carol Lodge	Weldon Abbott	Manager	Labrador City
Mokami Travel Service	Dave Hollett	President	HVGB
Lab Craft Prod Assn	Debbie Briffitt	Member	Lab Craft Prod

Atikonak Lodge	Audrey Walsh	Manager	Churchill Falls
Cul Rec & Youth	Dennis Minty	Wildlife Biologist	St. John's
Town of Lab City	Cec Vincent	Town Manager	Labrador City
Town of Wabush	Derm Flynn	Mayor	Wabush
Town of Wabush	Keith Warren	Town Manager	Wabush
Smokey Mtn Ski Club	Bill Campbell	President	Labrador City
Lab West Craft Guild	Evelyn Lahout	President	Labrador City
Devpt & Tourism	Dave Lough	Senior Reg Mgr	Wabush
MILAP Committee	Len Leyte	Chairman	Labrador City
Chamber of Commerce	Gorden Parsons	President	Labrador City
DRIE	Sterling Peyton	Regional Mgr	HVGB
CN Marine	W.P Embleton	Manager,Cstl Serv	St. John's
Happy Valley/Goose Bay	Hank Shouse	Mayor	HVGB
North West River	Beatrice Watts	Mayor	NWR
Happy Valley/Goose Bay	Al Durno	Town Manager	HVGB
Mokami Reg Devpt Assoc	Bruce Boles	Chairman	NWR
Mud Lake Imp Cmmttee	M. Broomfield	Chairperson	Mud Lake
Band Council	Ben Pokue	Chief	Sheshatshui
NMIA	G. Penashue	President	Sheshashui
	Bart Jack	Entrepreneur	Sheshatshui

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APPENDIX E QUESTIONNAIRE TO TOURISM OPERATORS

TYPE OF BUSINESS/ORGANIZATION _____

CURRENT OPERATION

1. Operation began during the year _____

2. Current number of employees _____
   (including working owner)

3. Location(s) _____

4. Service(s) offered: _____

   Where do you market? How?

   Labrador _____

   Nfld ____ _____

   Quebec ____ _____

   Canada ____ _____

   N. America____ _____

5. Total number of customers (% of resident & non-resident, if available) over the past three years:

	1983	1984	1985
total number			
% of residents			
% of non-residents			

6. How do your customers travel to your area? (indicate approximate percentage by each mode of transport)

   air - charter _____
   - regular _____
   QNS & L _____
   sea _____
   other _____

7. When is your peak period(s) _____ On an annual basis, are you currently operating:

at capacity
below capacity

If below capacity, then how much below? (in %) _____

8. Please indicate any problems you are currently experiencing in the following areas:

transportation _____

seasonal fluctuations _____

providing a full range of services to the customer _____

attracting new customers _____

other _____

FUTURE OPERATION

9. Do you have any plans for expansion with/without the Tote Road (with summer maintenance only)?

with _____
without _____

Do you have any plans to change your marketing strategy?

yes ____
no ____

If so, how? _____

10. What effect do you think the Tote Road (with summer maintenance only) would have on your operation in the following areas?

	No Effect	Some	Great
number of employees	____	____	____
size of sales/returns	____	____	____
marketing	____	____	____
services offered	____	____	____
seasonal demand	____	____	____
other	____	____	____

Specify where possible, including if effects are expected to be positive or negative _____

11. Could you make a rough estimate of the percentage increase of resident and non-resident customers (or total customers) you would realistically expect as a result of the Tote Road (with summer maintenance only)?

resident _____
non-resident _____
total _____

Do you think this would vary between the preferred and alternate routes?

12. Do you have any other observations about the effects of the Tote Road (with summer maintenance only) on the tourism industry in your area.

13. We are also interested in how your operation would be affected with:

A. The Tote Road from Labrador City/Wabush to Churchill Falls open all year round

B. A Tote Road from Labrador City/Wabush to Happy Valley Goose Bay open all year round

C. A road open all year round from Happy Valley Goose Bay to Baie Comeau

APPENDIX F: DATA FROM WATERFOWL SURVEYS CONDUCTED IN THE TOTE ROAD STUDY AREA

Table I. Estimated breeding pair population by species and ecological region for Lake Plateau area (based on adjusted 1980 aerial data), rounded to nearest 10.

Species	Populations (pairs) by Ecoregions (Total area (km^2)) Smallwood Reservoir (36,300 km^2)	Seahorse (13,800)	Mistastin Lake (14,400)	Churchill Falls [4/] (23,490)	Total Lake Plateau
Canada Goose	9,000 ± 1920	990 ± 210	1,610 ± 340	950 ± 200	12,550 ± 2680
Green-winged Teal	5,230 ± 1490	830 ± 240	1,210 ± 350	1,410 ± 400	8,680 ± 2490
Black Duck	3,050 ± 1080	330 ± 120	490 ± 170	500 ± 180	4,370 ± 1550
Total Dabbling Ducks [1/]	8,530 ± 2210	1,170 ± 300	1,700 ± 440	1,900 ± 490	13,300 ± 3450
Scaups	2,110 ± 1290	350 ± 210	910 ± 560	1,460 ± 890	4,830 ± 2950
Scoters	2,540 ± 1100	150 ± 70	450 ± 190	1,460 ± 630	4,600 ± 1980
Common Goldeneye	760 ± 620	150 ± 120	90 ± 70	550 ± 450	1,520 ± 1250
Red-breasted Merganser	3,010 ± 1050	1,410 ± 490	1,990 ± 690	2,020 ± 700	8,430 ± 2930
Total Diving Ducks [2/]	8,680 ± 2370	2,060 ± 560	3,430 ± 940	5,460 ± 1490	19,630 ± 5360
Total Ducks [3/]	18,510 ± 4160	3,230 ± 730	5,200 ± 1170	7,460 ± 1680	34,400 ± 7720

[1/] Includes Northern Pintail and Mallard.

[2/] Includes Common Merganser, Bufflehead, and Ring-necked Duck.

[3/] Includes unidentified ducks.

[4/] Densities in Tables 12 and 13 weighted as 1:4, as SE Labrador sample relatively much larger than that from Lake Plateau.

Source: From Waterfowl Populations in Labrador, 1980 -82, R.I. Goudie and W.R. Whitman, (in press).

Table 2. Adjusted equivalent breeding pairs per 100 km^2 total area on Lake Plateau sample plot surveys.

Species (Adjustment factor)	Smallwood Reservoir Sample Plots (888 km^2)	Churchill Falls Sample Plots (48 km^2)	Seahorse Sample Plots (192 km^2)	Mistastin Lake Sample Plots (72 km^2)
Canada Goose (x2.0)	24.8 ± 5.3 (s.e.)	4.2 ± 0.9	7.2 ± 1.5	11.2 ± 2.4
Green-winged Teal (x6.0)	14.4 ± 4.1	6.0[4/] ± 1.7	6.0[4/] ± 1.7	8.4 ± 2.4
Black Duck (x2.4)	8.4 ± 3.0	1.2[5/] ± 0.4	2.4 ± 0.7	3.4 ± 1.2
Total Dabbling Ducks[1/]	23.5 ± 8.3	7.2 ± 2.6	8.5 ± 3.0	11.8 ± 4.2
Scaups (x2.5)	5.8 ± 3.5	1.2[5/] ± 0.7	2.5 ± 1.5	6.3 ± 3.9
Scoters (x2.2)	7.0 ± 3.0	4.6 ± 2.0	1.1[5/] ± 0.5	3.1 ± 1.8
Common Goldeneye (x1.1)	2.1 ± 1.7	2.3 ± 1.9	1.1[4/] ± 0.9	0.6[5/] ± 0.5
Mergansers (x3.3)	8.3 ± 2.9	3.3[4] ± 1.2	10.2 ± 3.6	13.8 ± 4.8
Total Diving Ducks[2/]	23.9 ± 6.5	11.4 ± 3.1	14.9 ± 4.1	23.8 ± 6.5
Total Ducks[3/]	51.0 ± 11.5	18.6 ± 4.2	23.4 ± 5.3	36.1 ± 8.1

[1/] Including Mallard and Northern Pintail (x2.4).

[2/] Including Ring-necked Duck and Bufflehead (x2.5).

[3/] Including unidentified ducks (x2.4).

[4/] Not detected as indicated pairs on aerial survey, but seen in ecoregion either on ground surveys or as flocked birds from air; an arbitrary density of 1.0 pr/100 km^2 total area is inserted before adjustment.

[5/] Not detected in ecoregion, but undoubtedly occurs; an arbitrary density of 0.5 pr/100 km^2 is inserted before adjustment.

Source: From Waterfowl Populations in Labrador, 1980 -82, R.I. Goudie and W.R. Whitman, (in press).

Table 3. Estimated total waterfowl breeding pair population of Labrador and fall flight forecast, rounded to nearest 100.

Species	Breeding Pairs	Expansion Factor [1/]	Fall Population
Canada Goose	22,550 ± 8900	7.28	164,200 ± 64800
Green-winged Teal	16,400 ± 8100	5.66	92,700 ± 45,800
Black Duck	11,650 ± 4300	5.66	65,900 ± 24300
Total Dabbling Ducks	29,200 ± 12,000	5.66	165,300 ± 67700
Scaup	7,710 ± 5900	6.33	48,800 ± 37300
Scoters	7,100 ± 4200	6.33	44,900 ± 2900
Goldeneyes	4,210 ± 2500	6.33	26,600 ± 15800
Mergansers	17,980 ± 7500	7.33	131,800 ± 55000
Total Diving Ducks	39,220 ± 13,200	6.5	254,900 ± 85800
Total Ducks	68,420 ± 17500		420,200 ± 107500

[1/] From Erskine, this volume.

Source: From Waterfowl Populations in Labrador, 1980 -82, R.I. Goudie and W.R. Whitman, (in press).

Table 4
Estimated retrieved kill of waterfowl in Newfoundland

Species	Zone	1979 Kill	1979 %	1980 Kill	1980 %	1981 Kill	1981 %	1982 Kill	1982 %
Common Merganser	01	5 666	6.0	3 342	4.0	6 372	6.8	2 148	2.3
	02	805	2.9	634	2.7	677	3.4	2 450	8.8
	Total	6 471	5.3	3 976	3.7	7 049	6.2	4 598	3.8
Red-breasted Merganser	01	1 344	1.4	6 713	8.1	2 513	2.7	1 438	1.6
	02	2 851	10.2	616	2.7	960	4.8	4 523	16.2
	Total	4 195	3.4	7 329	6.9	3 473	3.0	5 961	4.9
Hooded Merganser	01	45	0.0	519	0.6	168	0.2	0	0.0
	02	0	0.0	634	2.7	123	0.6	0	0.0
	Total	45	0.0	1 153	1.1	291	0.3	0	0.0
Mallard	01	0	0.0	0	0.0	2 398	2.5	460	0.5
	02	456	1.6	0	0.0	0	0.0	0	0.0
	Total	456	0.4	0	0.0	2 398	2.1	460	0.4
Black Duck	01	33 398	35.4	28 813	34.7	34 661	36.8	23 677	25.5
	02	8 274	29.6	2 483	10.7	6 586	32.8	4 743	17.0
	Total	41 672	34.1	31 296	29.5	41 247	36.1	28 420	23.6
American Wigeon	01	140	0.1	0	0.0	0	0.0	266	0.3
	02	0	0.0	0	0.0	282	1.4	103	0.4
	Total	140	0.1	0	0.0	282	0.2	369	0.3
Green-winged Teal	01	13 362	14.2	11 717	14.1	16 773	17.8	15 797	17.0
	02	4 283	15.3	771	3.3	901	4.5	0	0.0
	Total	17 645	14.4	12 488	11.8	17 674	15.5	15 797	13.1
Blue-winged Teal	01	230	0.2	0	0.0	413	0.4	0	0.0
	02	95	0.3	0	0.0	0	0.0	0	0.0
	Total	325	0.3	0	0.0	413	0.4	0	0.0
Pintail	01	370	0.4	688	0.8	798	0.8	0	0.0
	02	1 428	5.1	248	1.1	282	1.4	0	0.0
	Total	1 798	1.5	936	0.9	1 080	0.9	0	0.0
Wood Duck	01	2 169	2.3	0	0.0	0	0.0	0	0.0
	02	0	0.0	385	1.7	0	0.0	0	0.0
	Total	2 169	1.8	385	0.4	0	0.0	0	0.0
Greater Scaup	01	642	0.7	2 880	3.5	0	0.0	830	0.9
	02	0	0.0	368	1.6	443	2.2	320	1.1
	Total	642	0.5	3 248	3.1	443	0.4	1 150	1.0
Lesser Scaup	01	0	0.0	1 862	2.2	0	0.0	0	0.0
	02	267	1.0	1 541	6.7	2 206	11.0	480	1.7
	Total	267	0.2	3 403	3.2	2 206	1.9	480	0.4
Ring-necked Duck	01	12 555	13.3	3 726	4.5	7 559	8.0	6 522	7.0
	02	0	0.0	3 058	13.2	281	1.4	0	0.0
	Total	12 555	10.3	6 784	6.4	7 840	6.9	6 522	5.4
Goldeneye	01	11 227	11.9	10 502	12.7	14 497	15.4	10 843	11.7
	02	6 054	21.6	6 750	29.2	4 722	23.5	6 583	23.6
	Total	17 281	14.1	17 252	16.3	19 219	16.8	17 426	14.4
Bufflehead	01	0	0.0	0	0.0	0	0.0	214	0.2
	02	0	0.0	0	0.0	0	0.0	214	0.2
Total sport ducks		105 661	86.5	88 250	83.2	103 615	90.6	81 397	67.5

(cont'd)

Table 4 *(cont'd)*
Estimated retrieved kill of waterfowl in Newfoundland

Species	Zone	1979 Kill	1979 %	1980 Kill	1980 %	1981 Kill	1981 %	1982 Kill	1982 %
Oldsquaw	01	0	0.0	2 010	2.4	0	0.0	2 220	2.4
	02	0	0.0	0	0.0	1 921	9.6	0	0.0
	Total	0	0.0	2 010	1.9	1 921	1.7	2 220	1.8
Common Eider	01	11 205	11.9	6 545	7.9	2 612	2.8	9 151	9.9
	02	1 463	5.2	2 562	11.1	0	0.0	3 017	10.8
	Total	12 668	10.4	9 107	8.6	2 612	2.3	12 168	10.1
King Eider	01	0	0.0	0	0.0	0	0.0	460	0.5
	02	0	0.0	0	0.0	0	0.0	460	0.4
Harlequin Duck	01	0	0.0	0	0.0	0	0.0	9151	9.9
	02	0	0.0	0	0.0	0	0.0	9151	7.6
Common Scoter	01	1 504	1.6	111	0.1	3 564	3.8	4 594	5.0
	02	358	1.3	1 793	7.8	359	1.8	1 180	4.2
	Total	1 862	1.5	1 904	1.8	3 923	3.4	5 774	4.8
White-winged Scoter	01	0	0.0	2 725	3.3	906	1.0	424	0.5
	02	1 202	4.3	368	1.6	0	0.0	0	0.0
	Total	1 202	1.0	3 093	2.9	906	0.8	424	0.4
Surf Scoter	01	362	0.4	778	0.9	1 020	1.1	4 561	4.9
	02	446	1.6	896	3.9	355	1.8	4 478	16.1
	Total	808	0.7	1 674	1.6	1 375	1.2	9 039	7.5
Total sea ducks		16 540	13.5	17 788	16.8	10 737	9.4	39 236	32.5
Total ducks		122 201	90.0	106 038	90.7	114 352	91.9	120 633	91.5
Canada Goose	01	8 717	100.0	7 102	100.0	6 747	100.0	8 409	100.0
	02	4 896	100.0	3 713	100.0	3 329	100.0	2 776	100.0
	Total	13 613	100.0	10 815	100.0	10 076	100.0	11 185	100.0
Total geese		13 613	10.0	10 815	9.3	10 076	8.1	11 185	8.5
Waterfowl		135 814	100.0	116 853	100.0	124 428	100.0	131 818	100.0

Source: Canadian Wildlife Service, Progress Notes No. 143, Feb, 1984.